PAPER TRADE JOURNAL

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY AND THE PIONEER PUBLICATION IN ITS FIELD

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JUNE 9 1938
Vol. CV
No. 23

ONE

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CINCINNATI

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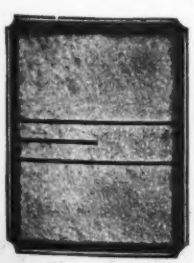

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"Non-Users Are The Losers"

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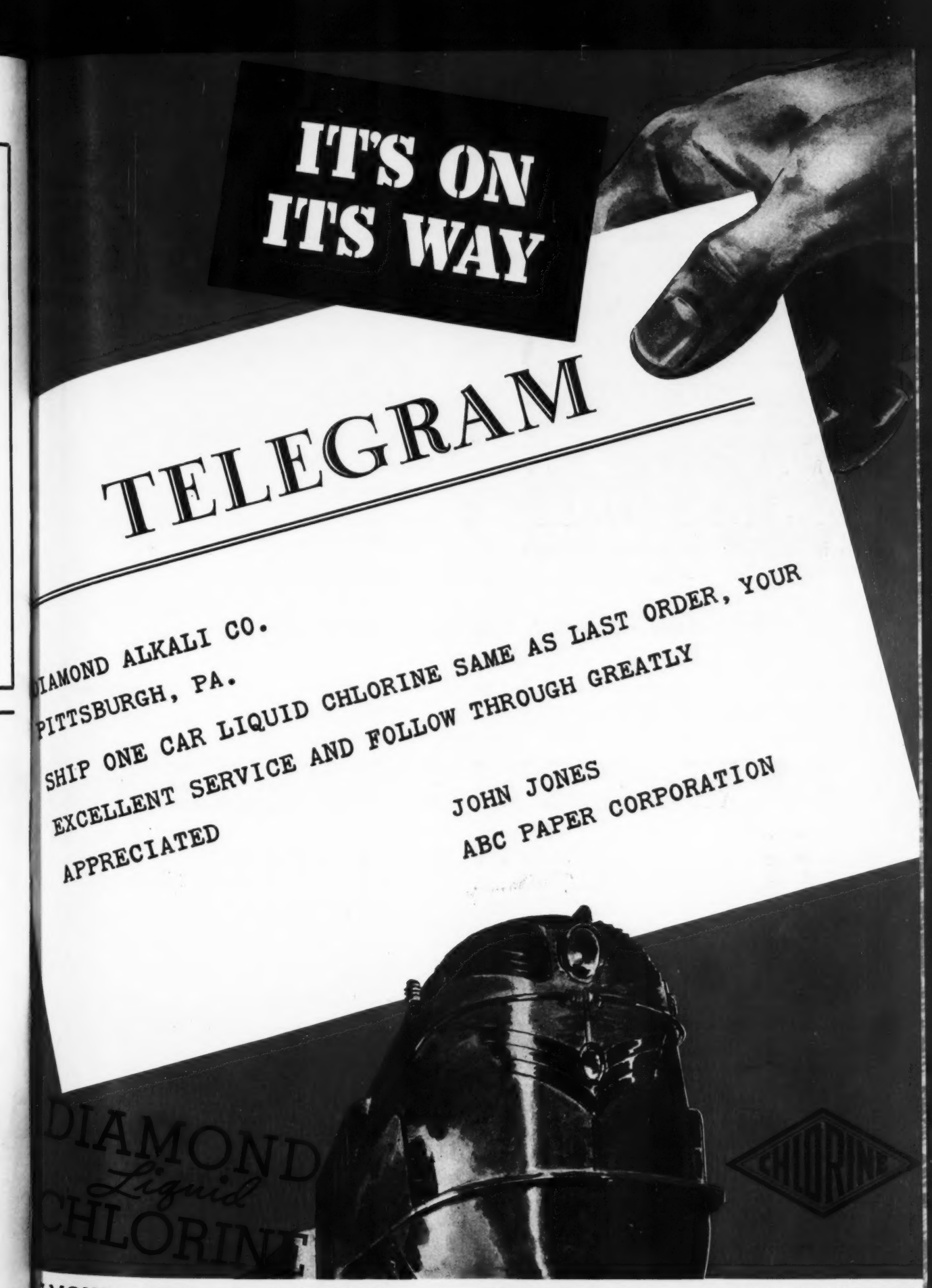
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SHIP ONE CAR LIQUID CHLORINE SAME AS LAST ORDER, YOUR EXCELLENT SERVICE AND FOLLOW THROUGH GREATLY APPRECIATED
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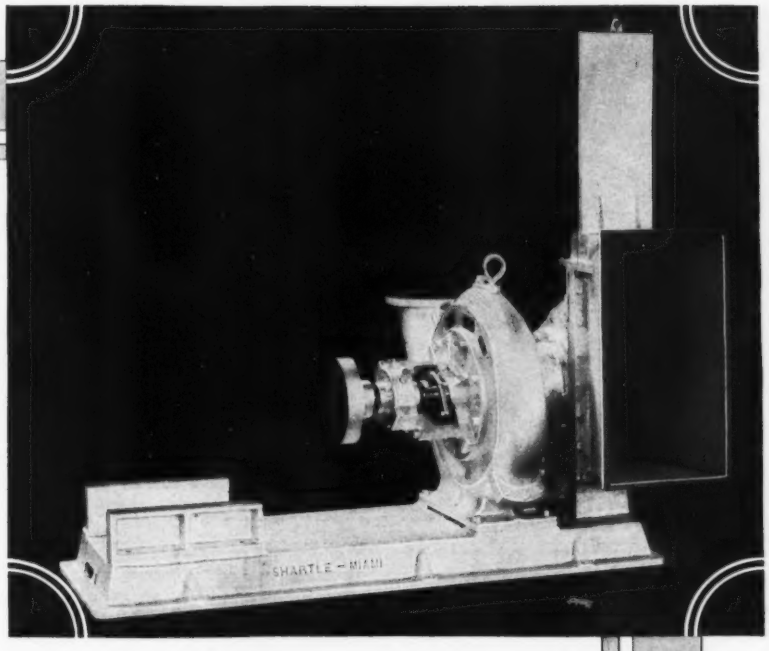

The Miami H M is the paper industry's outstanding centrifugal stock pump. A recent increase in the size of the suction casing enables it to offer an even greater combination of important features.

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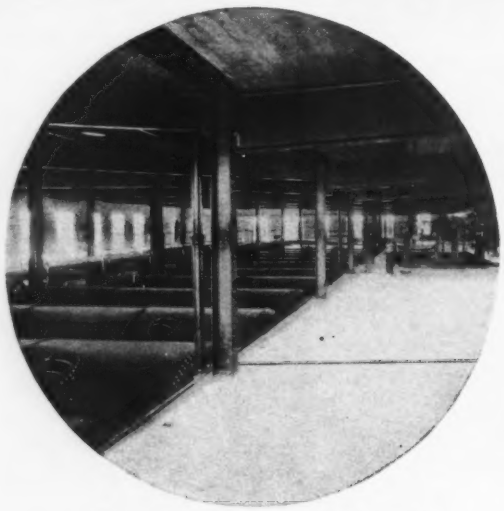

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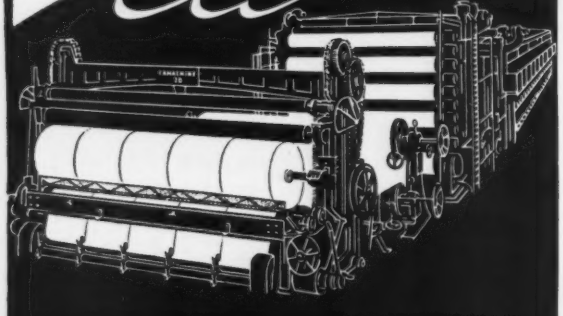

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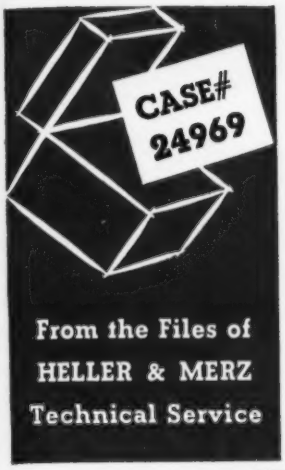

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Saved 20% on Color Cost

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PAPER TRADE JOURNAL

THE INTERNATIONAL WEEKLY OF THE PAPER AND PULP INDUSTRY AND THE PIONEER PUBLICATION IN ITS FIELD

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In your mill too, Slimform can be banished—slime losses turned into profits.

The story is told in Research Publication #327 "Slime in Paper Mills—Its Origin and Prevention." A request on your letterhead brings you a copy without obligation.

S tock losses—bacterial decomposition and reworking of stock

L owered Quality—slime spots—pin hole—objectionable odors

I ncreased Costs—in water, heat, labor, chemicals

M aintenance Troubles—blinded wires—plugged felts

F requent Clean-ups—slime breaks, poor sheet formation

O bstruction of Lines—stock and white water lines

R ecirculation Difficulties—slime growths in recirculated systems

M echanical Strain on felts and wires—shortened useful felt and wire life

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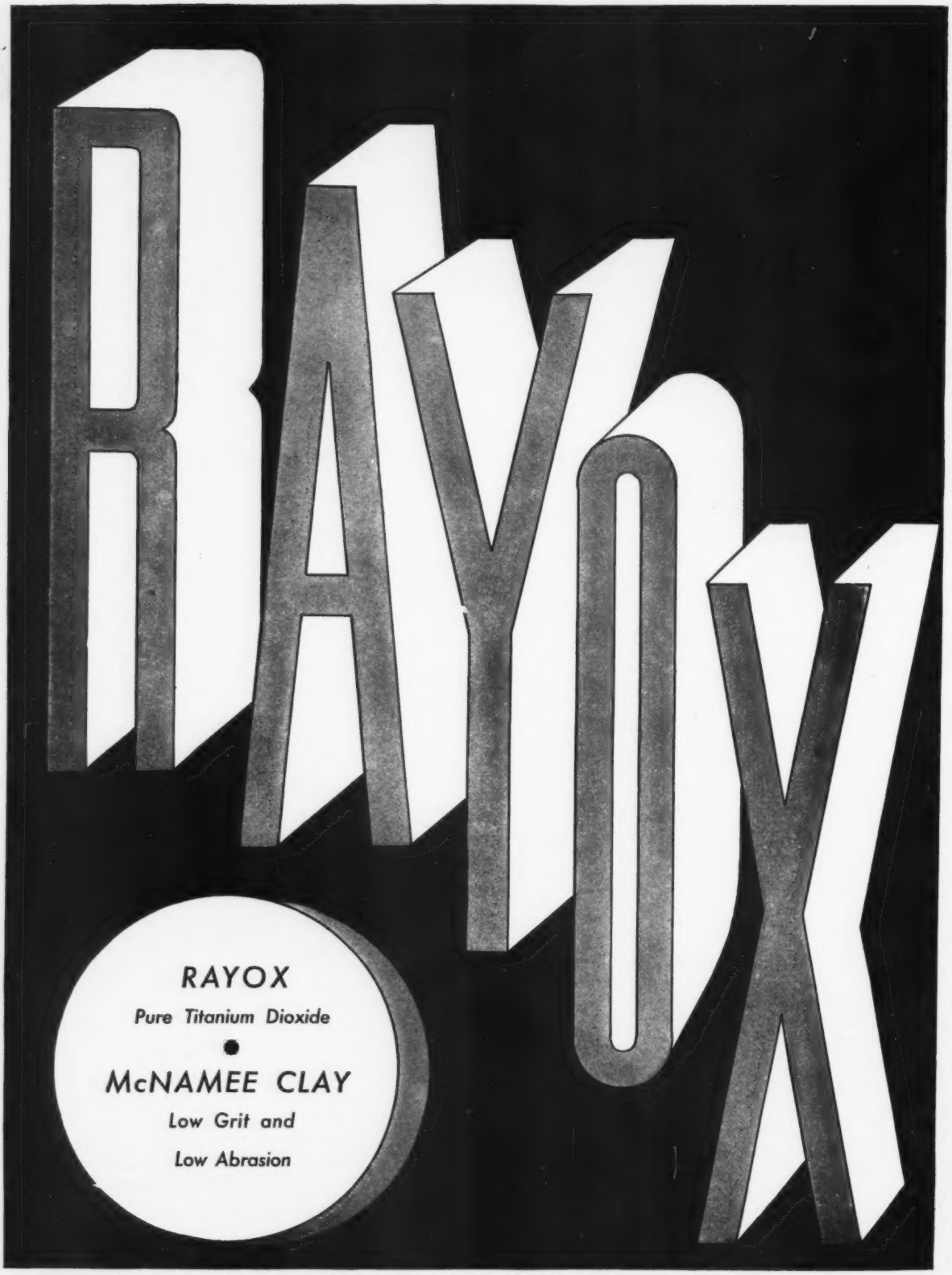

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PAPER TRADE JOURNAL

Reg. U. S. Pat. Off.

SIXTY-SIXTH YEAR

PAPER

Established Feb. 17, 1899
Consolidated Nov. 16, 1899
with PAPER TRADE JOURNAL.

Vol. CVI, No. 23

Thursday, June 9, 1938

PULP

Established Sept. 21, 1918
Consolidated Feb. 19, 1925
with PAPER TRADE JOURNAL.

Wausau Paper Mills Co. Suffers Large Loss

Collapse of Power Dam and Destruction of its Hydroelectric Plant Estimated at $750,000—Continuation of Operations Depend Upon R. F. C. Loan—Peavy Products Workers Strike—Other Mill and General News.

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., June 6, 1938—A loss estimated at $750,000 and the shutdown of its mill for an indefinite period are faced by the Wausau Paper Mills Company, Brokaw, Wis., as the result of the collapse of its power dam and complete destruction of its hydro-electric plant early Sunday morning, May 29. Harold Collins, treasurer of the company, indicated no private funds are available for reconstruction, and unless an RFC loan can be obtained, continued operation of the mill is in doubt.

Directors of the company held a meeting Friday, June 3, in the offices of C. C. Yawkey, Wausau, Wis., vice-president, and engaged L. E. De Guire of Wisconsin Rapids, Wis., paper mill engineer, to make a survey of the damage and establish the cause, which is still undetermined. No further action was taken as to repairing the damage, company officials said, and the future plans probably will await the recommendations of the engineer.

Donald Hammond, night engineer of the mill, was the only witness of the collapse. He had walked out on the dam to close the No. 3 gate, and fled for safety when he heard a thunderous noise and creaking. The foundation of the power plant suddenly gave way, sweeping the 60-foot-high building into the Wisconsin River. No evidence could be seen afterwards of either the building or the turbines or generators. Three of the large steel gates of the dam were carried away with the building.

Mr. Hammond notified the Wisconsin Valley Improvement Company by telephone, and gates all the way down the river were opened to release the wall of water to save flooding of other paper mills. There was no damage at any of the mills, and the Wausau company's basement, with large quantities of finished stock, also was spared from inundation.

Power Plant Installed in 1927

The hydro-electric plant placed in operation in 1927, was of the most modern design, and was completely automatic. It was equipped with a 1,420-horsepower wheel and a 1,100-kilowatt-hour turbine. The present dam was built in 1925 to replace a wooden one. It was of concrete and steel, and was inspected periodically. The hole into which the plant toppled was 70 feet deep. The building stood at the east end of the 325-foot dam, and was about 300 yards west of the mill. The mill is also equipped with a steam plant, but it is not capable of generating enough power to run the mill.

This is the second dam washout at the mill. In July, 1912, a wooden dam was washed out by heavy rains.

The catastrophe means idleness indefinitely for approximately 300 workers. The mill had been running six days a week, and had the most extensive operating schedules in years, because several months of effort had produced the finest white sheet ever turned off the machines.

Company Under New Management Since 1935

The company was placed under new management in 1935, when production of high grade sulphite bond was substituted for white wrappings. More than $500,000 had been invested in new equipment. Several new machines and an acid tank are now under construction. A modern and expensive slush and circulation system was put into operation less than a month ago to move wet pulp through pipes instead of drying and trucking it. Further improvements also were planned if business warranted it. The present loss was not covered by insurance.

Wausau Paper Mills Company was organized in 1899, and was the first to be built on the Wisconsin River. Its present officers are: Ben Alexander, president; C. C. Yawkey, vice-president; W. B. Clements, vice-president and general manager; Harold C. Collins, treasurer, and W. L. Edmonds, secretary. Other members of the board of directors are D. C. Everest and M. E. McGarry.

Paper Mills Support Plan for Reservoir

Support for another mammoth reservoir to impound water of the Wisconsin River was voiced by representatives of the Consolidated Water Power and Paper Company and the Nekoosa-Edwards Paper Company at hearings conducted last week at the court house at Wisconsin Rapids, Wis. The hearings were conducted by Adolph Kannenberg as a representative of the Wisconsin Public Service Commission on a

(Continued on page 48)

Ontario Paper Co's. Newsprint Mill Opens

Giant Newsprint Plant Built by Chicago Tribune at Baie Comeau a 30 Million Development—Includes One of World's Finest Mills, Model Town and Hydro-Electric Plant—Price of Newsprint—Other Late News.

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., June 6, 1938.—Elaborate arrangements are underway for the official opening next Saturday of the newsprint mill at Comeau Bay, Que., built by the Chicago Tribune's subsidiary, the Ontario Paper Company, for the supply of newsprint to its allied publication, the New York Daily News.

Spoken of as a $30,000,000 development, on which some $15,000,000 to $20,000,000 has already been spent, the project represents the most important industrial development in Canada in years. It includes, besides one of the finest newsprint mills in existence, a model town and a hydro-electric development.

Distinguished Gathering at Opening

Attending the opening will be a distinguished gathering, including the Hon. Maurice Duplessis (premier of Quebec), representatives from the Dominion Cabinet, the Hon. Mitchell Hepburn (premier of Ontario), accompanied by the Hon. Peter Heenan and other political and industrial leaders. Quebec's Government will be strongly represented with several cabinet members attending including the Hon. Joseph Bilodeau, Minister of Trade and Commerce, Hon. Onesime Gagnon, Minister of Mines and Fisheries, local and district M.L.A.'s and department officials. Two Bishops and representatives of Quebec Catholic clergy will take part in the opening ceremonies, as will representatives of Protestant Churches in the capital city.

Central figure of the opening, however, will be Col. Robert R. McCormick, publisher of The Chicago Tribune, whose initiative and foresight are generally responsible for the vast developments in this former wilderness. For many years interested in the Gulf of St. Lawrence North Shore, Col. McCormick was the first to realize the potentialities of a large-scale development in this "forgotten land" on the eastern fringes of Quebec Province.

Shortly after the war the Chicago publisher first commenced actual development on the Comeau Bay and Outrades Falls sites but, as the position of the Canadian newsprint industry became unsettled, he agreed to co-operate with the Quebec and Ontario Governments and delay development work until a later period. Meanwhile the Chicago Tribune secured its newsprint supplies from the Ontario Paper Company mill in Thorold, Ontario, while its sister newspaper, The New York News, purchased mounting quantities of paper from mills in New Brunswick and Newfoundland.

Development a Vast Project

In 1936 it was realized that the Baie Comeau development, involving vast expenditures for labor and materials in Canada, would provide a tremendous encouragement for Canadian industry then recovering from depression. Accordingly the Ontario Paper Company, under the leadership and direction of A. A. Schmon, president and managing director, undertook to carry to completion the project that had been waiting since the early twenties.

When work began in April, 1936, the townsite was a barren waste of trees and rocks. There was, first of all, the difficulty of transporting materials. Docks and wharves, railways and highways had to be built before actual city and mill construction could proceed. Thousands of men were employed throughout the summer and fall months. Houses were built, power lines set up, streets laid out, sewers and water mains laid and the city that was to be quickly took shape. Speed was essential but also, it was stressed by company officials, the new metropolis must in no sense of the term be a "mushroom city". Everything was built for permanence.

Throughout the entire period of construction the most modern methods and materials were used. Many times more money was spent than appeared absolutely necessary, in order that the city and its homes would be as efficient and enduring as possible.

All Canadian Industry Benefited

Industries throughout Canada benefited by the Comeau Bay development since supplies and equipment were purchased from all parts of the Dominion. From British Columbia came the wood pipe, the longest and largest pipe of its kind in the world; from Lachine, Quebec, came the great paper machines, from Montreal and Toronto and Hamilton came the tons of electrical equipment and the complicated machinery that serves the newsprint mill and power plant.

A. A. Schmon, the company president, is well known in industrial circles throughout Ontario and Quebec, lived for a considerable period on the North Shore of the Gulf of St. Lawrence and has taken a keen interest in the development of Quebec Province.

Opening Ceremony June 11

The Baie Comeau opening ceremonies will extend throughout the day on June 11 and the S.S. New Northland has been chartered by the company to take company guests and officials to the new city. In addition to those taking part in the actual opening ceremonies representatives of the principal contractors and sub-contractor officials from other newsprint companies, directors of the Ontario Paper Company, representatives of The Chicago Tribune and The Daily News and publishers of leading Canadian newspapers will be present. Following the ceremonies the New Northland will sail early Sunday morning to return to Quebec.

Price of Newsprint

Premier Duplessis, interviewed here during the week regarding the price of newsprint said:

"I am against every form of cutthroat competition, and we will do everything in our power, while respecting the rights of others, to safeguard the interests of the province."

How to net

MORE DOLLARS EVERY HOUR

the paper machine runs

Put in a Bird Save-All system and you'll get the highest net return per pound of fibre recovered and per gallon of water re-used . . . The beauty of it is that you can figure the net return before you invest a single penny. With things as they are doesn't that seem worth looking into? . . . Just ask us to furnish the layout and estimates?

BIRD MACHINE COMPANY
SOUTH WALPOLE, MASSACHUSETTS

BIRD SAVE-ALL

Paper Prices Stable as Demand Declines

Midwest Paper Trade Falls Off as General Business Activity Recedes—Chicago Merchants Adopt Five-Day Week For Summer — Proposed "Equalizing Use Tax"—Display at A.P.P.A. Meeting—Late Mill News.

[FROM OUR REGULAR CORRESPONDENT]

CHICAGO, Ill., June 6, 1938—The Chicago paper market is dull and featureless. The current quietness in business in general is now being accentuated by the seasonal reaction which combines for a period more inactive than for the past three years, according to local reports. However, prices have remained stable in virtually all lines and an even keel has been maintained which is a credit to the underlying strength of and lack of hysteria in the entire market. The fine paper lines have shown no indication of any change, with conditions reported as "spotty" and prices unchanged. Book and cover papers remain in the same narrow channel. Krafts are unchanged at the present basis while nothing of importance has been recorded either in the groundwood or newsprint markets. Board prices remain stationary and the demand for these lines is slow. Waste papers have shown very slight signs of coming at least a step out of the current debacle with soft white shavings and a few other lines indicating a slightly steadier tone.

Fine Paper Houses Adopt Five-Day Week

Chicago paper merchants are again adopting the plan of closing their offices and warehouses on Saturdays as indicated by an announcement from the Western Paper Merchants Association which reads as follows: "Last summer a plan to close on Saturdays was adopted by the fine paper merchants of Chicago to enable their employees to have longer and more enjoyable week-ends. This plan proved to be successful and it will be followed again this summer. Starting Saturday, May 28 and continuing through Saturday, September 3, the offices and warehouses of the fine paper merchants listed following will be closed. Employees, as well as their employer, the paper merchants, will appreciate your cooperation in placing your orders for week-end requirements in ample time to enable their delivery early Friday". Cooperating firms are Berkshire Papers, Inc., Bermingham & Prosser; Blunden-Lyon; Bradner Smith & Company; J. W. Butler Paper Company; Chicago Paper Company; Dwight Brothers Paper Company; Empire Paper Company; Fort Dearborn Paper Company; Great Lakes Paper Company; Hobart Paper Company; LaSalle Paper Company; Marquette Paper Company; Messinger Paper Company; Moser Paper Company; Murnane Paper Company; Parker, Thomas & Tucker; Sabin Robbins Paper Company; Swigart Paper Company; Whitaker Paper Company and the James White Paper Company.

Outing of Paper and Twine Club

Leo Altholz, Inlander, Steindler Company and Earl Beier, Beier & Company, prominent Chicago coarse paper executives, are members of the entertainment committee planning big things for the fourth annual outing of the Paper and Twine Club to be held next week, June 6 and 7 at the Spink-Wawasee Hotel, Lake Wawasee, Indiana. The meeting and outing will be held in conjunction with the meeting of the Middle States Wrapping Paper Association.

Proposed State Tax Cause of Anxiety

Business interests of Illinois, including the organized paper units, are perturbed over two developments in the Illinois Legislature during the past week. An "equalizing use tax" bill has been introduced which does not charge the user of merchandise for personal consumption but actually charges the business firms for the merchandise they use in the transacting of their business which is not now definitely taxed under the 3 per cent Retailers Occupation Tax. The measure as it now stands should prove directly beneficial to all paper houses actually located in Illinois but it is likely to prove a serious penalty to those who have been shipping in through local offices from points outside the State direct to business consumers. One side of the controversy points out that the measure should be passed to protect Illinois industry from outside-the-state competition. The other side feels that the Act is highly discriminatory, will not protect business against individual purchases for consumption, is a "use tax" in no sense of the word and should be defeated.

The other proposed measure worrying paper merchants is one in which power would be given to the Chicago City Council to license for revenue purposes. This, of course, would pave the way for licensing of paper firms, sales representatives, jobbers and others not now directly taxed by the present Retailers Occupation Tax. The two measures are now being discussed at Springfield as possible means of financing the current relief crisis.

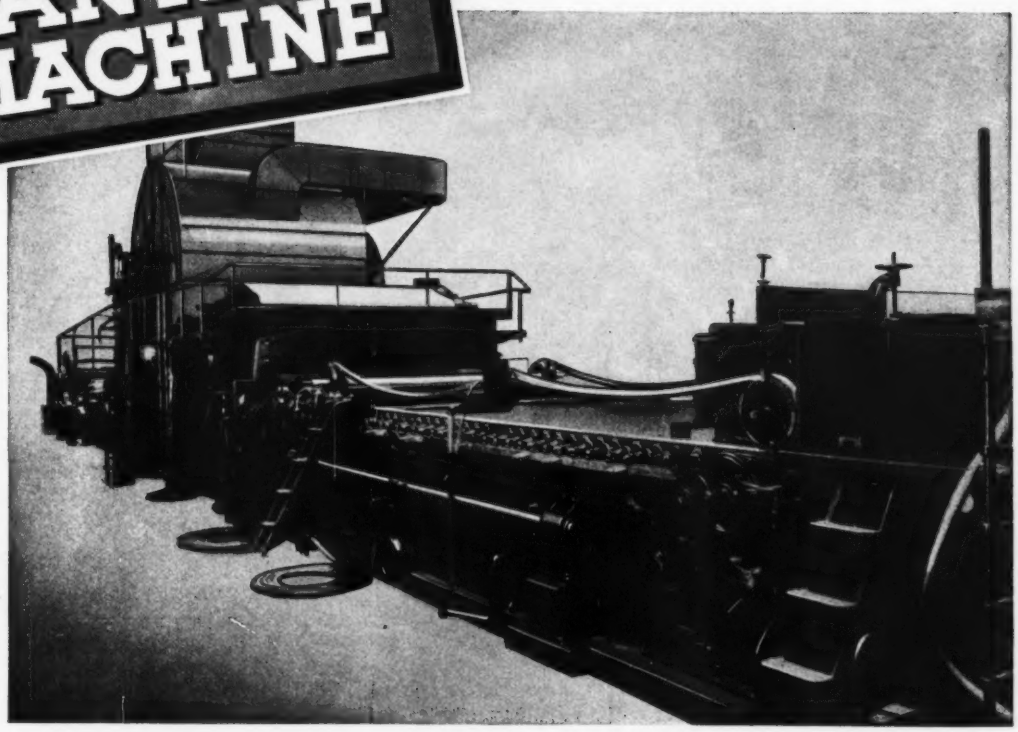
Display at A.P.P.A. Meeting

A number of Chicago manufacturing concerns, widely known in the industrial world, are scheduled to display their wares at the coming annual sessions of the American Pulp and Paper Superintendents Association to be held at the Royal York Hotel, Toronto, June 22, 23 and 24. Among those scheduled to participate in the industrial exhibits are the Allis-Chalmers Company; Barrett Cravens Company; Crane Company; Link-Belt Company and Joseph T. Ryerson & Sons, Inc. It is also reported that several paper executives specifically interested in the mechanical production of paper will journey from Chicago to participate in the unusually interesting program.

Rexford Moves Offices

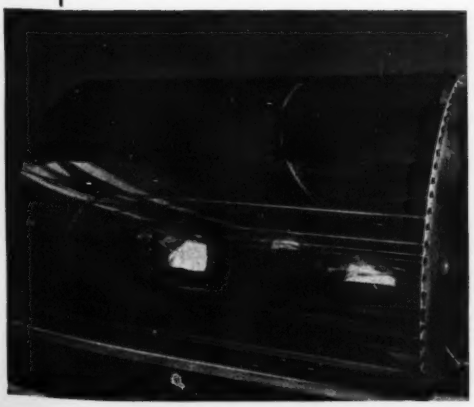
The Rexford Paper Company has moved its Chicago offices to larger quarters at 600 West Jackson Boulevard, the Otis Elevator Building. The move is made coincident with the silver anniversary of the well known concern which is utilizing a silver seal of attractive character to depict the growth of the company from 1918 to 1938.

THE Beloit YANKEE MACHINE



● **The Beloit Yankee Machine furnishes an economical easy means of diversification. No other machine has the all-around adaptability to fit the needs of mills making specialty papers, both light and heavy weights.**

The machine is provided with all the latest features: Removable Fourdrinier ...High Speed Super Shake...Suction Rolls...High Pressure Dryer...Hypoid Drive, etc.



Beloit has developed a special alloy metal and special grinding and polishing process to produce the close grained, hard mirror finish shown in this photograph. This is a result of Beloit's many years of experience in building practically all the Yankee machines in this country.

Beloit has also recently developed a high pressure Yankee dryer to meet the demand for maximum production.

THE BELOIT WAY IS THE MODERN WAY

BELOIT IRON WORKS • BELOIT • WIS.

Heron Bay To Be Important Pulpwood Center

Construction of Development Due to Expansion of Ontario Paper Company Will Handle 40,000 Cords of Wood Yearly—Construction Work Estimated to Cost $750,000 — Canadian International Paper Mill Reopens.

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., June 6, 1938.—Heron Bay east of Port Arthur, Ont., on the Lake Superior Shore will become a great pulp wood center owing to the program of expansion of activities of the Ontario Paper Company, Limited, Thorold, Ont., of which Arthur A. Schmon is president and general manager. Angus Robertson, Limited, has just been awarded the contract for the construction of a power house, barking drums, townsite and other facilities for the development of the Black River timber limits. Tenders for a 300 foot wharf of steel piling will be called for in a few days. The Ontario Paper Company will construct a nine mile road connecting the townsite with the railway station at Heron Bay and six miles of logging flumes will be built to aid the movement of timber. Construction of the development which will handle a minimum of 40,000 cords of wood annually, will start immediately.

President Schmon said that the company had been obtaining the major supply of its wood from properties in the province of Quebec but had concluded an arrangement with the Ontario government whereby it would obtain part of its supply in Ontario on the Black River limits acquired from the Crown under an arrangement which obligates the company to a minimum of 40,000 cords of wood annually for twenty-one years. Woods operations start this year and wood will be ready for shipment to the company's mill at Thorold next spring. Mr. Schmon declared that construction work and development activities would involve an expenditure of $750,000 and the company would give preference to labor in the province of Ontario. Permanent employment will be afforded to residents in the district once the project is in operation.

Pulp Wood Peeling Season Opens

Thompson-Heyland Lumber, Limited, Toronto, who are extensive dealers in pulpwood report that the peeling season has started in Ontario on balsam, spruce and poplar and will continue for about ten weeks. Owing to the unsettled state of the pulp and paper industry only a little over fifty per cent of the amount of wood taken out last season will be peeled this summer. Many mills last year entered into too large contracts and have not yet taken delivery. They are hesitant about making new agreements. In places where the wood has been shipped out prices remain about the same as in 1937, but in other districts where there are large stocks on hand or unsold, there has been a reduction in the price paid from ten to fifteen per cent. Wages for cutting and peeling are unchanged.

Harmonious Labor Relations

Harmonious relations exist between J. R. Booth, Limited, Ottawa, and the E. B. Eddy Company, Limited, Hull, and their respective employes. This was shown recently in agreements between the two industrial firms and international unions in the paper industry. In a statement issued by union officials covering an agreement for another year it was set forth that a minimum wage of forty cents an hour was granted, with the forty-eight hour week and adjustments for mechanical trades that are similar to jobs in comparable mills. The agreement with the Booth Company was carried out in a harmonious spirit in which workers have special mutual interest clauses whereby the company and employes have meetings each month for the purpose of discussing mutual matters. It has been found beneficial to both the company and the employes to have such gatherings each month and this feature of the agreement has been insisted upon by both parties. Another clause has as one of its main purposes close cooperation so as to further to the fullest extent possible the safety and welfare of the employes and economy of operation, quality and quantity of output, cleanliness of plant and protection of property. It is agreed by the parties to be the duty of the company and the employes to cooperate fully, individually and collectively for the advancement of said conditions.

Canadian International Mill Reopens

The sulphite pulp mill of the Canadian International Paper Company at Hawkesbury, Ont., which was closed on May 7 resumed operations on May 30 giving employment to six hundred men. Since January 1st last the mill has been closed on three occasions for two weeks each. The "cut up" plant of the company will shortly re-open.

Use of Cottonwood for Pulp Forecast

A press dispatch from Edgewater Park, Miss., under date of June 1 says that "Use of wood from the common cottonwood tree as a base for the manufacture of newsprint was forecast today by Dr. Charles H. Herty in an address before the thirty-sixth annual convention of the Southern Newspaper Publishers Association. Delegates were told that latest developments in the search for a Southern source for newsprint involved the use of a mixture of 20 per cent pine pulp and 80 per cent cottonwood. The cottonwood, a tree of extremely rapid growth, never before has been used in this field. Dr. Herty described the newsprint made from the mixture as 'of excellent quality'."

N. C. Pulp Co. To Close for Week

PLYMOUTH, N. C., June 6, 1938—L. J. Meunier, Jr., superintendent of the North Carolina Pulp Company here, announces that the plant will close down on June 10 for a week in order to make the semi-annual repairing and inspection that is necessary.

The plant has been running for several months, three 8-hour shifts being used each 24 hours.

• Men who use Liquid Chlorine in large quantities . . . drum after drum . . . car after car . . . are the best judges of a manufacturer's ability to supply a consistently uniform product. That many of the country's largest users rely on EBG regularly is testimony to the uniform purity of EBG Liquid Chlorine . . . and a guide to good buying for *any* user.

ELECTRO BLEACHING GAS COMPANY

MAIN OFFICE: 60 EAST 42nd STREET, NEW YORK, N. Y. • PLANT: NIAGARA FALLS, N. Y.

EBG Liquid Chlorine

FIRST IN THE COUNTRY

Beck and Smythe Companies Consolidate

Charles Beck Co. and J. L. Smythe Co. Merge to Form One of the Larger Distributing Houses of Industrial and Printing Papers in East — Philadelphia Paper & Cordage Ass'n Outing — Other Late Industrial News.

[FROM OUR REGULAR CORRESPONDENT]

PHILADELPHIA, June 6, 1938—Leonidas Beck, president of Charles Beck Company, general paper merchants, has issued the following announcement:

"The J. L. N. Smythe Company and Charles Beck Company announce that effective June 15, 1938, they will consolidate to form one of the larger distributing houses of industrial and printing papers in the east. They will continue to represent the same leading mills and distribute the same well-known watermarks and brands as carried by Charles Beck Company.

The J. L. N. Smythe Company was organized in 1900, and specializes in all kinds of wrapping and building papers. The Charles Beck Company, organized in 1864, handles fine papers for printers, lithographers and publishers. The union of these two well-known houses will result in increased facilities for all buyers of papers.

Virtually the entire personnel of Charles Beck Company will join the J. L. N. Smythe Company at 1600 Callowhill Street, Philadelphia, and will be known as the Charles Beck Company, Fine Paper Division of The J. L. N. Smythe Company."

Paper and Cordage Assn. Outing

Arrangements have been completed and the stage all set for the annual outing of the Philadelphia Paper and Cordage Association at Manufacturers' Country Club, Oreland, Pa., on Friday, June 10th.

Over the signature of Jack Shinners, secretary, the following statement is made: "Next to the Christmas Party this is the most important function of our organization and your Committee has gone to great lengths to make the outing this year the most outstanding we have ever had. They have kept the price down to the minimum, namely, $2.00 per person for golf and $2.00 for dinner and an evening's entertainment which this year will consist of a gigantic New York floor show. This two bucks also includes periodic visits to the 19th hole where the Association will provide its customary free (four letter word meaning libation.)" The Entertainment Committee, with E. K. Lay, chairman, together with George K. Hooper, Hooper Paper & Twine Company, Inc.; Harry S. Platt, Denney Tag Company; Frank T. Hufnal, Huff Paper Company; Lee Johnson, D. L. Ward Company, and Samuel Shryock, Shryock Brothers, can always be depended upon to furnish a program that will be the last word in entertainment.

"Pur-test" Nesting Container

A new nesting container, known as "Pur-test" has been put on the market by Purity Paper Vessels Company, Clipper Mill Road, Baltimore, Md. "Pur-test" while maintaining the high standards of quality which Purity products are famous for, is economical and affords a worthwhile saving to the user through space saved by virtue of the nesting features.

"Pur-test" is designed for use particularly in the ice cream and grocery trades, and comes in stacks of 25-250 to the carton. The lids which are packed separately are guaranteed not to contact either in the carton or in handling. They may be obtained in 1 quart, 1 pint and ½ pint sizes and printed in one or two colors. The sanitary feature of this container is highly commended because of the elimination of handling.

W. B. Kilhour Attends Commencement

W. B. Kilhour, Jr., President of Paper Trade Association of Philadelphia and Quaker City Paper Company, has just returned from a short visit to Greensboro, S. C., where he attended Elon College Commencement. Mr. Kilhour was accompanied by Rev. John Stapleton, who was signally honored with the degree of Doctor of Divinity.

Dixie Container Gets Lease

RICHMOND, Va., June 6, 1938.—The Dixie Container Corporation, manufacturer of corrugated paper products, has completed a long-term lease on 50,000 square feet of space in the American Locomotive Company property at Seventh and Hospital Streets.

The new company, incorporated in Virginia, plans a capital outlay here of $250,000, of which $125,000 is represented by modern and highly productive machine equipment for manufacturing corrugated shipping cases and packing materials.

With only local labor employed, the Dixie Container Corporation will start production early this summer, C. W. Quinn, president of the company, said today. All the equipment has been assembled, and work has already started on preparing the leased building to meet the company's needs and on construction of a new boiler plant.

The annual production will be about 15,000 tons of corrugated paper products used largely by the tobacco, textile, furniture, peanut, hardware, baking and food products industries, which will be distributed to consumers in the Middle Atlantic and Central States territory.

J. & J. Rogers Co. Celebrates

[FROM OUR REGULAR CORRESPONDENT]

AU SABLE FORKS, N. Y., June 6, 1938.—The 45th anniversary of the founding of the J. & J. Rogers Company, was celebrated here this week by a banquet which was attended by officers, members of the office staff and veteran employes. The affair was staged under the supervision of the Au Sable Forks Rotary Club and was dedicated to the memory of two outstanding paper mill men who were first and foremost in the foundation of the company, the late James Rogers and George Chahoon. Photographs of both and the present officers of the concern, I. H. Chahoon, president, and Henry Rogers, vice president, were printed in the program. The principal speaker was Morris Gintzler, a member of the firm of the Pulp and Paper Trading Company, of New York City. About 65 invited guests attended.

Financial News of Pulp and Paper Industry

Mill of International Power and Paper Co. of Newfoundland Passes Into Hands of Bowater's Paper Mills—Mersey Paper Co. Shows Profit of $947,243 — Flintkote Directors Take No Action on Dividend.

NEW YORK STOCK EXCHANGE

High, Low and Last for the Week Ending June 8, 1938

	High	Low	Last
Armstrong Cork Co.	28¼	26¾	28
Celotex Corp.	19	17	18½
Certain-Teed Products Corp.	5¾	5⅝	5¾
Certain-Teed Products Corp., pf.	24	21½	23
Champion Paper & Fibre Co.	19¼	19¼	19¼
Champion Paper & Fibre Co., pf.	95	94¾	94¾
Congoleum-Nairn Co.	18½	17¼	18⅛
Container Corp. of America	11¼	10¼	11
Crown-Zellerbach Co.	9	8¾	9
Flintkote Co.	14⅞	13⅜	14¼
Robert Gair	3⅛	2⅞	3
International Paper & Power	6⅞	6⅜	6⅞
International Paper & Power, pf.	28¾	25⅝	28
Johns-Manville Corp.	68¼	63¼	67¼
Kimberly-Clark Corp.	20¾	20¾	20¾
Masonite Corp.	28	27½	28
Mead Corp.	9⅞	9½	9½
Paraffine Companies, Inc.	33	33	33
Ruberoid Co.	17	16½	16½
Scott Paper Co.	40½	40	40½
Sutherland Paper Co.	25	22	24¾
Union Bag & Paper Corp.	8¾	8¼	8¾
United Paperboard Co.	4	3⅞	3⅞
U. S. Gypsum Co.	69	64½	68¾

NEW YORK CURB EXCHANGE

High, Low and Last for the Week Ending June 8, 1938

	High	Low	Last
Brown Co., pf.	20	20	20
St. Regis Paper Co.	2¾	2⅝	2⅝
Taggart Corp.	4½	4½	4½

Bowater's Buys Newfoundland Mill

R. J. Cullen, president, International Paper Company, announced on June 3, that an agreement had been concluded with Bowater's Paper Mills, Limited, of London, for the purchase by Bowater's of the entire common share capital of International Power and Paper Company of Newfoundland, Limited, of Corner Brook, Newfoundland. A special dispatch from Montreal states that cable advice from London report the official announcement there that control of Newfoundland's greatest newsprint development has shifted from the United States to England. The big industry operated by International Power and Paper Company of Newfoundland has passed into the hands of Bowater's Paper Mills, Limited, of London, through outright purchase of common stock.

Negotiations now concluded will involve the transfer of $5,500,000 for the entire 700,000 share capital of the Newfoundland concern's common stock. It had been held by Canadian International Paper Company, a subsidiary of New York's International Paper Company.

The deal, in the making for months, gives Bowater's a huge mill at Corner Brook with a daily capacity of 580 tons of newsprint, a barking plant and a 156,000-horsepower hydro-electric development at Newfoundland's Deer Lake. The company under transfer also owns a number of paper-carrying steamships and other incidental properties.

Timber resources controlled by the firm consist of 1,700 square miles, and another 5,600 square miles are under crown license, for a total estimated stand of 13,500,000 cords of pulpwood. Negotiations are underway for acquistion of further timber stands.

In going into British hands, control of the industry at the mouth of the Humber River reverts to the country where it originated. The mill was built with English capital before the United States concern took it over as part of its network that stretches through the eastern United States, Quebec Province and the Canadian Maritimes.

As simultaneous announcement to the same effect was made in New York, and a despatch from that city adds:

"It was learned that today's transaction did not affect other outstanding securities of the Newfoundland company which showed in its balance sheet of December 31, 1937, a funded debt, made up of gold bonds and mortgage debenture stock, totalling $24,883,305, as well as preference shares totalling $10,088,000.

"International Power and Paper Company of Newfoundland, Limited, was incorporated in Newfoundland in 1927 to take over the properties and assets of Newfoundland Power and Paper Company, Limited. The mill was originally built with English capital before it passed into control of the International Company."

Mersey Paper Issues Report

[FROM OUR REGULAR CORRESPONDENT]

MONTREAL, Que., June 6, 1938.—The consolidated financial statement of the Mersey Paper Company, of Liverpool, N. S., for 1937 shows gross profits of $947,243 against $824,219 in 1936. Interest charges were somewhat smaller during the past year, amounting to $366,536, and the balance, $580,706, was transferred to depreciation and depletion reserve. The year before the balance available for depreciation was $445,995.

The consolidated financial statement shows a net working capital of over $1,400,000, compared with an excess of current liabilities over current assets of $2,100,000 at the end of 1936. The change took place largely as a result of new financing carried out during this year. The company issued $4,000,000 of new 5% first mortgage bonds, while the net balance of the 6% general mortgage bonds outstanding was increased from $1,899,500 to $2,099,500. As a result of the financing, the company liquidated $2,970 000 of bank loans; reduced the current loan from $681,000 to $311,000; and reduced mortgages payable from $625,921 to $47,153.

Among the current assets accounts and notes receivable show a decline from around $1,200,000 to $967,361, while inventories increased from $785,276 to $1,190,627. Capital expenditures during the year brought the property account up from $13,062,887 to $13,413,114.

In his report to the shareholders C. H. L. Jones,

president, draws attention to the fact that two subsidiary companies—Liverpool-Brooklyn Realty Co., and Sissiboo-Clyde Power and Pulp Co., were voluntarily wound up by Mersey. Rossignol Land, wholly-owned subsidiary incorporated in 1937, entered into agreements of purchase of certain timberlands. Mersey has guaranteed the performance of this subsidiary to purchase timberlands on a cordage and acreage basis, for a sum to be determined upon completion of timber cruises and to be payable in 11 annual installments, on which there was provisionally due and paid $105,000 in 1937. $100,000 will be payable in 1938.

Another contingent liability of the company is concerned with the contract of Nova Scotia Power Commission, under which $250,000 is payable in 1938 with respect to additional power being developed.

St. Regis Pays $2,629,699 in Salaries

[FROM OUR REGULAR CORRESPONDENT]

CARTHAGE, N. Y., June 6, 1938.—A statement issued this week by Carl B. Martin, executive vice president of the St. Regis Paper Company, revealed that total salaries paid to about 1,250 employees of the Taggart and St. Regis branches for the year 1937 amounted to $2,629,699.10. This exceeds similar payrolls for 1936 by approximately $400,000 and covers employees of the mills at Norfolk, Deferiet, Watertown, Herrings, Harrisville, Oswego and the Champion branch at West Carthage. Included in the $2,629,699.10, which covers the mills in the Northern New York section, is an item of $58,410.14 representing salaries and operating employees earning $5,000 or more. For the first four months of 1938 the total payrolls to Northern New York employees compares favorably with those for a similar period of last year.

Canadian Wallpaper Profits

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., June 6, 1938.—The directors of the Canadian Wallpaper Manufacturers, Limited, Toronto, report a net profit for the year ending April 30, 1938, of $157,419. The directors recommend the payment of a first and final dividend for the year ending April 30, of one dollar per share. The dividend, if approved by the shareholders at the annual meeting to be held on June 22, will be payable on July 1st.

F. H. Blackman Heads D. F. Munroe Co.

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., June 6, 1938.—At a recent meeting of the D. F. Munroe Company, Floyd H. Blackman was elected president in place of his father, Arthur W. Blackman, who had died; John F. Blackman, another son, vice-president and secretary; A. H. Whitney, vice-president, and W. F. Brown, treasurer.

Flintkote Take No Action on Dividend

The directors of the Flintkote Company have decided to take no action on the common dividend at this time. The last payment on the issue was 25 cents in December, 1937. Similar payments were made in the other three preceding quarters of that year.

Government Paper Bids

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., June 8, 1938 — The Government Printing Office has received the following bids for 2,000 sheets of 24 x 36 Quaker drab cloth lined cover paper: Mudge Paper Company, $148.02 per M sheets; R. P. Andrews Paper Company, $152,95; Mathers-Lamm Paper Company, $163.00; Stanford Paper Company, $155.50, less 1%; Whitaker Paper Company, $148.50; Andrews Paper House of York, $168.40; and Barton, Duer & Koch Paper Company, $148.50.

For 46,000 pounds (200,000 sheets) of 38 x 48 offset book paper: John F. Post, Inc., 5.79 cents; Whitaker Paper Company, 6.3 cents; Old Dominion Paper Company, 5.687 cents; Stanford Paper Company, 5.7 cents; Barton, Duer & Koch Paper Company, 5.66 cents; Marquette Paper Company, 5.71 cents; R. P. Andrews Paper Company, 5.87 cents; Aetna Paper Company, 5.67 cents; Paper Corp. of U. S., 5.72 cents; Mudge Paper Company, 5.63 cents; Mathers-Lamm Paper Company, 5.7 cents; and Walker, Goulard Plehn Company, 5.76 cents.

For 45,200 pounds of 24½ x 32½ white sulphite index: Walker, Goulard Plehn Company, 5.77 cents; Virginia Paper Company, 5.73 cents; Whitaker Paper Company, 5.83 cents; Old Dominion Paper Company, 5.867 cents; Stanford Paper Company, 5.74 cents; Barton, Duer & Koch Paper Company, 5.68 cents; Marquette Paper Company, 5.76 cents; R. P. Andrews Paper Company, 5.77 cents; Aetna Paper Company, 6 cents; Mudge Paper Company, 5.76 cents; and Mathers-Lamm Paper Company, 5.72 cents.

Dr. Lathrop Goes with Celotex Corp.

Dr. Elbert C. Lathrop, technical director of Crown Willamette Paper Company, Camas, Wash., has been elected vice-president of Celotex Corporation, Chicago, Ill., and will be in general charge of all technical matters. He was previously connected with the Celotex Corporation as director of research and development, from 1925 to 1932, resigning in the latter year to become associated with the Crown Zellerbach Corporation, San Francisco, Cal., which operates the Crown Willamette Paper Company. Dr. Lathrop was an instructor in chemistry at DePau and Purdue Universities, and at Pratt Institute, and subsequently was manager of the chemical standards division of E. I. du Pont de Nemours & Co., Wilmington, Del., before his connection with Celotex in 1925.

Great Lakes to Pay Back Interest

TORONTO, Ont., June 6, 1938.—The first of the two deferred interest coupons on the bonds of the Great Lakes Paper Company, Limited, Fort William, Ont., will be paid on July 2, next. The bondholders in January of last year approved postponement of the coupons due October 1, 1936, and April 1, 1937, to July 2, 1938 and July 2, 1939, respectively, with interest to date of payment. This action was taken to provide funds for necessary capital improvements. At the time the Dominion Bank made an offer to purchase the coupons or hold them and receive interest on the interest. The coupon due April 1, 1938 was paid and regular payments have been made since October 1, 1937.

Canada Will Welcome the Superintendents

For the first time in its history, the American Pulp and Paper Mill Superintendents' Association will hold its annual convention in Canada, although the New York-Canadian Division, of course, has held several meetings in the Dominion. Interest already expressed indicates that the gathering at the Royal York Hotel in Toronto June 22, 23 and 24 will be the big-best convention the superintendents ever held. And Canadian paper makers, both active members of the association and executives and staff of companies, are doing everything possible to make the affair a complete success. The general committee also has the enthusiastic cooperation of the Toronto Board of Trade, the Royal York Hotel, and the stores and recreation clubs of that city.

It is obvious, from the program, that the aim of President Millidge and his committee has been to provide first a sound foundation of helpful, practical papers and discussions that a superintendent or other operating man cannot afford to miss. Supplementary to this program and the exhibition of machinery is the opportunity to visit pulp and paper mills en route to and from the convention. Brief descriptions will be given of some of the mills in the Niagara and Toronto district. In Thorold, Merritton and St. Catharines are mills making everything from tissue paper to wallboard and in Toronto and Georgetown are mills making book and coated papers, box and container boards.

About half way between Niagara and Toronto is Greensville village, where Crooks made the first paper in Upper Canada in 1823. At Merritton, on the old Welland Canal is a building in which Charles Riordon and his son Carl made sulphite pulp by the Kellner process, which Carl brought over from Austria in the 1870's. Charles Riordon had started making wrapping papers back about 1867, the year of the Confederation of the Canadian provinces. This plant, and the old Kinleith mill at St. Catharines, have been dismantled, but the neighborhood is still one of the most important paper making centres in Canada.

Our imaginary tour, which many visitors to the convention will make actual, will follow the usual route from Niagara Falls. This world-famous point of interest needs no description and no one will want to miss it.

The Mills at Thorold

Thorold, which is only a few miles from Niagara Falls, has four paper mills—The Beaver Wood Fibre Company, The Ontario Paper Company, Brantford Felt and Paper Company, and Provincial Paper Limited.

The Beaver Wood Fibre mill is equipped with 18 grinders of the 3-pocket type, 10 beaters, a Pusey and Jones 166-inch newsprint machine, 2 Sandy Hill 112-inch board machines, 8 steam boilers, and 1 electric steam generator; power at 12,000 volts is purchased from Hydro-Electric Power Commission. The daily capacity of this mill is: 125 tons ground wood; 180 tons board, and 77 tons newsprint daily; it also manufactures chipboard, coreboard, pulpboard (folding and non-folding), pulpboard (colored folding and non-folding), screenings board, silk board, suitcase fiber board. Among the mill specialties are: container, chip, newsboard, patent coated boards, filled pulp and bleached manila, plaster and fibre wallboard papers. John Ball is manager, H. Zieman is superintendent of the newsprint department, M. Meacham is superintendent of the board department, W. J. Patton of the ground wood department, and P. W. Codwise is chemist.

The Ontario Paper Company is a straight newsprint mill, making also wrappers for its own use and for the new mill of the Company at Baie Comeau, Quebec. Although the company is controlled by an American publisher and the output of both mills is entirely used by the *Chicago Tribune* and the *New York Daily News*, the Ontario Paper Company is, in every sense, a distinctly Canadian organization. This mill includes: complete wood handling and preparation equipment; 30 grinders with a daily capacity of 390 tons of ground wood, 3 digesters, daily capacity 125 tons of sulphite, 5 Fourdrinier machines (2, 202-inch; 1, 164-inch; 2, 160-inch) with daily capacity of 500 tons of newsprint; 1 cylinder machine, 104-inch, with daily capacity of 13 tons of wrapper.

The personnel at the Thorold mill includes:—General manager and president, Arthur A. Schmon; Manager of manufacturing, L. C. Anderson; Superintendent, J. A. Devine; paper mill superintendent, J. F. Kilawee; control superintendent, J. B. Jones; maintenance superintendent, J. V. Fahey; chief engineer, J. T. Jaeger; chief electrician, W. L. Eliason; sulphite superintendent, W. T. Anderson; ground wood superintendent, D. F. Keenan.

Provincial Paper Limited has five mills, located at Mille Roches, Georgetown, Thorold, and Port Arthur; the head office is in Toronto. The Thorold mill has two Fourdrinier machines, 90 inches and 140 inches in width. F. M. H. Cushing is mill manager and S. G. Staples is superintendent.

Brantford Felt and Paper Company, Limited, which is owned and controlled by Brantford Roofing Company, Brantford, Ontario, has a paper mill in Thorold. It is equipped with 5 beaters, 2 jordans, a 72-inch Fourdrinier machine and a 108-inch 4-cylinder board machine. The output consists of indented bottle wrap, sheathing, gray rag wrapping, and roofing felt. Charles Fitch is general superintendent, and R. D. Paul, mill superintendent.

The Thorold Pulp Company Limited operates two grinders and has a daily production of 10 tons of ground wood of special grades. The general manager is A. W. Fisher and James F. Wilson is superintendent.

The Mills of Merritton

The plant of Alliance Paper Mills Limited, consists of several integrated divisions. The sulphite mill has 3 digesters and 2 bellmer bleachers, and produces 16,000 tons annually of No. 1 bleached and unbleached sulphite, and refined sulphite screenings. The Lybster mill has 6 beaters and one 118-inch Fourdrinier with a daily capacity of 25 tons. The varied production of this mill includes: Book, bond, label and litho, offset, poster, tariff, waxing, writing, greaseproof, glassine, embossed glassine, onion skin, and carbonizing tissue. The Lincoln mill has 4 beaters and a 92-inch cylinder machine with a daily

capacity of 12 tons. The output includes: Carlining, hosiery, krinkle, jute tag, manila tag, sulphite tag, rope paper, jute paper, flower sack paper, boxboards, sulphite wrappers, insulating, varnish, mill wrappers and specialty wrappers. In addition, the company has a paper bag department at Merritton turning out plain and coated blue-lined, printed bags, in sizes from 2 lb. to 50 lb. The coated paper division of the company is at Georgetown.

The operating personnel of the Alliance Paper Mills includes: Manager of manufacturing, Merritton division, A. E. H. Fair; mill superintendents, H. E. Karberg, sulphite mill; H. Hookings, Lybster mill; J. W. Turner, Lincoln mill; H. Went, bag mill; D. P. Crichton, coating mill (Georgetown); superintendent of maintenance and chief electrician, H. McKay; chief engineer, E. J. Phillip; chief chemist, D. A. Cameron.

Interlake Tissue Mills Company, Limited, is equipped with 8 Hollander type beaters and 1 Vortex beater, 1, 148-inch Fourdrinier with daily capacity of 20 tons lightweight papers and 1, 116-inch M. G. machine with daily capacity of 10 tons machine-glazed tissue. The products of the mill include: high grade toilets in rolls and packages, napkins, towels, decorative crepes in folds and streamers; also a full line of tissues in sheets and in rolls, second sheets and waxing papers. George E. Rausch is general superintendent and E. R. Wand is chief chemist.

Garden City Paper Mills Company, Limited, is partly in St. Catharines. The equipment includes an 84-inch Fourdrinier machine, and a 110-inch Harper. The output of the two mills is 6,500 tons per annum, consisting of: Creping paper, napkin paper, paper towels, sulphite papers, tissue, toilet, towelling, waxed and waxing paper, wrapping, pattern paper, paper napkins, carbon base paper, manifold, fruit wrapping paper, pleating tissue, bottle wrapping paper, tissue excelsior and waterleaf paper. The mill manager is Richard Carroll.

The Attraction of Toronto

While the paper mill district described above has the added attraction of being almost within hearing of the roar of Niagara Falls, Toronto also has many attractions besides the paper mills in the city and vicinity. The Royal York Hotel, headquarters of the convention, is the largest in the British Empire and one of the best appointed and managed hotels anywhere. It was designed to accommodate conventions and is remarkably convenient and well-equipped for such affairs. Toronto is the capital of the Province of Ontario, with a fine group of government buildings; the University of Toronto is nearby. Toronto's museums, churches, stores, and parks; Casa Loma, Sunnyside Park and the Canadian National Exhibition grounds would keep a visitor busy and happy for a week. And there are excellent golf courses and other forms of recreation. There are also several paper mills.

Don Valley Paper Company, Limited is the descendant of one of Canada's early mills, dating back a century or so. It has 4 beaters and an 84-inch Harper Fourdrinier. The production is 15 tons daily of covers, blottings, index, bristols, postcard, manila and sulphite tag, envelope and folder stock, chocolate layer board, high grade white and colored sulphite specialties, special finishes, rotary cut cards. F. A. Burton is superintendent.

Gair Company Canada Limited has three mills in Toronto, of which J. C. Nutter is manager. Dominion Boxboard division has a 112-inch 7-cylinder board machine, with a capacity of 22,000 to 24,000 tons per annum of chipboard, bleached manila lined chip, patent coated boards, silicated crackershell board, test board, high grade boxboards, cylinder kraft fiber board and pasted boards. York Paper Mills division of Gair Company has an 86-inch Fourdrinier, making lightweight specialties. The Canadian Paperboard division has a 112 inch trim, 7-cylinder machine, producing 150 tons per day on all grades of paperboard.

Hinde & Dauch Paper Company of Canada, Limited has 2 board machines at the Toronto plant, fed by 15 beaters and 12 jordans. The machines are, a 124-inch, 6-cylinder with a daily capacity of 65 tons and a 130-inch, 7-cylinder with a capacity of 150 tons. The production of this mill includes: Container liners, chipboards, high grade white specialties and colored boards, boxboards and kindred products. The box and container department is equipped to produce a variety of products. Roy M. Cook is general superintendent.

At Georgetown, a few miles from Toronto, Provincial Paper Limited has a 2-machine coating mill and a 6-machine coating mill. W. V. Grant is mill manager, Ed. MacWhirter is superintendent of the coating mill. The output of each division is 15 tons daily. Alliance Paper Mills Limited has a large paper coating plant at Georgetown, of which D. P. Crichton is superintendent.

The President's Mill

Visitors coming from the east can stop at Cornwall, where Howard Smith Paper Mills, Limited has a 4-machine book and writing paper mill. The manager is Brydone D. Millidge, president of the American Pulp and Paper Mill Superintendents' Association. At Mille Roches, nearby, Provincial Paper Limited has a 2-machine book paper mill, and at Trenton, Hinde and Dauch Paper Company has a mill making strawboard for corrugating purposes, light weight chipboards and kindred products. Daily capacity is 105 tons.

The program of meetings, recreation events, and social functions, is as follows:

The Program at Toronto

The program will really start before the registration on Wednesday morning. En route to the Queen City it is anticipated that visits will be made to mills along the various highways and byways travelled. The committee expects that as many as possible will reach Toronto on Tuesday as early in the day as possible. An important part of any business convention is the renewal of old friendships and the making of new friends. New persons are coming year by year, and it is as desirable as it is important that these new men be taken in and made welcome. New blood will enliven the older ones; the old blood will, perhaps, steady the younger fellows.

Wednesday June 22

Wednesday morning will be devoted to registration and the official opening. The luncheon will afford another opportunity to meet old friends and greet new ones. The ladies who accompany the conventioneers will have their luncheon in Eaton's famous

Round Room at their College Street store. In the afternoon, the convention will get down to the serious business of papers and discussions. The evening meal is not a scheduled event, but the boat excursion on Lake Ontario is one of the features of the convention. The s.s. *Cayuga* will take the party; it is but a few steps from the hotel to the wharf. There will be accommodation for 2,000 persons and ample opportunity for dancing, singing, games and what-not. The excursion is so arranged that all may be back to the hotel by midnight.

Thursday, June 23

Group meetings, papers and discussions will occupy the morning of Thursday. Luncheon is go-as-you-please. The afternoon will be devoted to sports. Arrangements have been made for the golf tournament on the famous St. Andrews course where the Canadian open was played last year. Besides the Muirhead trophy, an excellent selection of prizes has been made possible by generous contributions of firms connected with the industry. The tournament will be open to members, associate members, and guests, and the course is reserved for players wearing the convention badge. Members of golf clubs must present a statement of their club handicaps from a club official. Others must accept the handicap given them by the secretary and the professional at St. Andrews Golf Club. For those who prefer other games, there will be skeet shooting at the York Skeet Club, and lawn bowling. There will also be a swimming exhibition at the indoor pool at Sunnyside; the swimmers taking part are real experts and anyone not engaged with their favorite sport will be well advised to attend. The ladies will have an opportunity to compete in a golf tournament on the nine-hole course at St. Andrews Golf Club, Thursday morning or afternoon. For the ladies who do not golf, there will be provided a guide who will show them around the hotel in the morning. This will be an unusual chance to see how a large hotel is run and will incidentally afford the ladies a peek behind the scenes of an industry organized in providing comfort. In the afternoon the swimming exhibit will afford them a very interesting diversion. A special ladies' dinner is provided for the evening with entertainment running throughout. This will be staged in the attractive roof garden of the Royal York Hotel. The men are allowed to eat where they choose at night, but they are commandeered for the smoker and entertainment on the convention floor of the Royal York. This is the entertainment feature of the convention. During the evening there will be a presentation of prizes.

Friday, June 24

Friday morning will be devoted to a tour of the exhibition of machinery and equipment. At noon there will be a men's luncheon, after which there will be further papers and discussions. The feature of the evening will be the joint banquet and dance. The toastmaster will be Harold Crabtree, and the principal speaker will be Premier Hepburn of Ontario. The dance will begin immediately after the banquet and will continue until it's over. In the morning the ladies will leave in buses for a visit to Casa Loma, the magnificent home built by Sir Henry Pellatt. The buses will then take the party to Old Mill where luncheon will be served, and bridge played.

Indianapolis Demand Slow

[FROM OUR REGULAR CORRESPONDENT]

INDIANAPOLIS, Ind., June 6, 1938—Little change has been seen in the local paper market during the last week or two. Business is below the level of this time a year ago and there are few present indications that it will improve before fall.

Increases have been made during the week, however, in summer specialties and building papers. The summer specialty trade did not start until late due to cool and rainy weather. A premature hot spell early in the spring led some to believe that summer had arrived and there was some fairly heavy buying at that time. However, before stocks in retail hands had been nearly exhausted, cool and wet weather arrived and continued for weeks, halting consumption. The last week, however, saw some renewed buying. Because of weather conditions, building was slow in getting underway, but there has been a steady increase in demand for most building papers during the last fortnight. Given some favorable weather the trade is expecting volume to make up for lost time, but there are few who believe it will reach the peak it did last year.

Container men report only a fair business. There has been an increase in containers going to the ice cream and other creamery product plants, but other consumers are buying only hand to mouth and their requirements are curtailed. Makers of corrugated papers report a fair mill demand, where executives are doing business with the brewing industry. Prices are holding firm and this seems true in most of the trade.

Nothing very favorable can be reported concerning the fine paper business. There are some orders, but volume is off. Newsprint, however, seems to be holding its own, particularly in the smaller cities and agricultural communities.

Paper stock men report a light mill demand and the local warehouses are well supplied. Prices show no appreciable change. Most of the demand continues to be for better grade paper and rags.

Powell River Co. Curtails Production

VANCOUVER, B. C., June 6, 1938.—Operators of the Powell River Company, the largest individual newsprint mill on the Pacific coast have curtailed production at their plant at Powell River, B. C., to sixteen days a month, Harold S. Foley, executive vice-president, said in a statement just released.

Economic conditions were cited as the reason for curtailment by Mr. Foley, who said the reducing operation schedule will be in effect for "several months."

Mr. Foley reviewed conditions in the newsprint industry generally, and said that due to the business recession in the United States and the complete collapse of the Oriental market curtailment was unavoidable.

Peru Imports More Newsprint

WASHINGTON, D. C., June 8, 1938—Imports of newsprint paper into Peru during the year 1937 totaled 6,553 metric tons, according to a report from the office of the American Commercial Attache, Lima. More than half this amount, 3,605 tons, came from Canada. The United States with 1,116 tons ranked second, and Germany with 881 tons, third.

Obituary

Albert B. Weissenborn

[FROM OUR REGULAR CORRESPONDENT]

APPLETON, Wis., June 6, 1938.—Albert B. Weissenborn, president of the Appleton Wire Works, Appleton, Wis., died at his home Thursday, June 2, after an illness of three weeks. He was 74 years old, and had been in failing health for some time.

Mr. Weissenborn was one of three men who founded the Appleton Wire Works in 1896, the first of its kind in the middle west. The other two were William Buchanan and G. E. Buchanan. The latter, who was secretary-treasurer, died April 9. Mr. Weissenborn designed most of the equipment now in operation in the plant, and was instrumental in devising the power shuttle which gave more speed and accuracy in production, and also the system of welding of wires to remove the seams. He held numerous patents on his improvements.

Mr. Weissenborn was born in Belleville, N. J., September 6, 1863. Besides being head of the wire works, he was vice-president of the Tuttle Press Company, Appleton, and a director of the Northern Paper Mills, Green Bay, Wis. He was a charter member of the Appleton Rotary Club, a member of All Saints Episcopal Church, and a Thirty-second Degree Mason.

One daughter, Mrs. Roy H. Purdy, survives him. Her husband is general manager of the Tuttle Press Company.

Funeral services were held Saturday afternoon, June 4, at All Saints Episcopal Church, with the Rev. W. J. Spicer in charge. Burial was made in Riverside cemetery at Appleton.

Mrs. Thomas Floyd Smith

LOUISVILLE, Ky., June 6, 1938.—Mrs. Mary Bruce Smith, 65, prominent clubwoman and wife of Thomas Floyd Smith, president of the Louisville Paper Company, died Friday in her home at Glenview. For two years Mrs. Smith had been in ill health, and her condition had been serious for several months.

Granddaughter of John L. Helm, Governor of Kentucky from 1850 to 1851, and daughter of Circuit Judge H. W. Bruce, Mrs. Smith attended Kentucky Home School. She and Mr. Smith had been married forty years.

Mrs. Smith was Kentucky director of the Robert E. Lee Memorial Foundation, and had served as president of the Monday Afternoon Club and vice president of the Woman's Club. She was a member of the Colonial Dames, the United Daughters of the Confederacy and the Filson Club.

Mrs. Smith was active in a group which sewed for Belgian refugees during the World War and which has continued to meet weekly to make garments for charity. The group is known as The Belgians.

Besides her husband and the son, Mrs. Smith is survived by one other son, Thomas Floyd Smith, Jr.; a brother, Alexander Bruce; a sister, Miss Preston Bruce, and three grandchildren, Bruce Michael Smith, Olivia Logan Smith and Thomas Floyd Smith V.

Carl S. Hamersley

Carl S. Hamersley of 105 West 72nd Street, New York City, president of the Hamersley Manufacturing Company, paper manufacturers, died Monday afternoon in the Lenox Hill Hospital, after a long illness, at the age of 65.

Mr. Hamersley was born in Jersey City, a son of the late Siegfried Hamersley, inventor of a process for making wax paper by machinery and founder of the company. On his father's death in 1898 Mr. Hamersley succeeded to the presidency. He had graduated from Stevens Institute in 1893. Mr. Hamersley belonged to several organizations of paper manufacturers and merchants, the Engineers Club of New York, Los Angeles and the Hollywood Athletic Clubs. A widower, he is survived by no members of his immediate family.

Edmund L. Young

[FROM OUR REGULAR CORRESPONDENT]

TORONTO, Ont., June 6, 1938.—Edmund Louis Young, widely known in paper circles, died in Toronto on May 31 in his seventy-eighth year after a long illness. He was born in Northfield Centre, Ont., and coming to Toronto as a young man, he entered the employ of the E. B. Eddy Company. Later he worked for the R. H. Thompson Company, Victoria Paper & Twine Company and the Montrose Paper Mills. He then entered into partnership with R. I. Finlay under the name of the United Paper Mills, Limited and retired twelve years ago, going to Norwich, Ont., to reside but returned to Toronto in 1931. Mr. Young is survived by three sons and a daughter, all living in Toronto.

Thomas J. Lyons

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., June 6, 1938.—Thomas J. Lyons, 37, purchasing agent and salesman for E. J. Flemings Estate, Lowell, Mass., died May 24 at his residence in that city. With his family, Mr. Lyons left Lowell on his vacation April 19, going to Norfolk, Va., from which they went on the boat to Florida. On the way back in Virginia, Mr. Lyons suffered a shock, but was taken to his home.

He was very active, covering Lowell and vicinity, had a large number of friends by whom he was highly regarded. He was a member of the Knights of Columbus and the Elks.

His wife, Mrs. Ruth Lyons, a son, Thomas J. Lyons, Jr., and a daughter, Patricia Lyons, are living.

Barney J. Sbalotny

[FROM OUR REGULAR CORRESPONDENT]

GARY, Ind., June 6.—Barney J. Sbalotny, president and owner of the Gary Paper and Supply Company and sportsman, died recently after a brief illness. He was 47 years old. He was a charter member of the local Lions Club and local Izaak Walton League and also was affiliated with the Chicago Paper Association. He came here 17 years ago as local manager of the Tapajna Paper Company. In 1930 he severed this connection and organized his own company. He was born in Germany but came here when 11 years old. The widow, a daughter and a son survive.

Francesco Rossi

Word has just been received in this country of the death, on May 4, of Francesco Rossi, founder of the firm of Societa Anomina Cartiera Rossi, well known paper manufacturers at Vicenza, Italy. The late Mr. Rossi was the father of Ginolamo Rossi the present manager of the firm.

Straight Gas Powered Hydraulic Lift Truck At Northeastern Container Plant

By Lester R. Edwards[1]

People who do business with paper and container manufacturers or who are in any way connected with this industry will undoubtedly be interested in detailed cost figures and the newer method of handling this material by means of straight gasoline powered lift trucks that operate with a hydraulic lifting and tilting mast.

Handling as high as 100 tons of board a day over varying distances as far as 300 feet involves careful planning for maximum efficiency. Manufacturing corrugated paper shipping containers and specialties, our production is naturally confined largely to the use of kraft paper. Kraft paper in rolls naturally lends itself to better handling in horizontal position rather than the vertical position.

When our freight cars come in on the siding, loaded with rolls of kraft paper, they are rolled down a ramp into the warehouse. At the end of this ramp a Towmoter lift truck with a flat plate scoop picks up the rolls, elevates slightly and travels to the pile. Here the roll is elevated to the proper height by means of a hydraulic lifting mast controlled with a lever that is convenient to the driver's right hand. The mast is then tilted forward and the roll actually rolls in place on the stack.

Formerly we used a platform type of lift truck, but while this has many advantages and is ideal for many uses, it was slower and more costly to operate than the present type we now have. With the platform type we had to build a bridge from the platform to the top of the pile and then push the rolls by hand over this portable bridge as well as rolling them on the platform by hand, to start with. But of course there was no other way we could do this as long as we used a type of lift truck built with wheels in front.

[1] Pres., Northeastern Container Corp., Bradford, Pa.

With the present type of lift truck we are now using, we pick up these rolls in a scooping fashion, transport them to the pile over a distance of from 75 to 300 feet and drop them in place without the use of bridges and with much less difficulty.

Another advantage we have found with the present type of lift truck is that it also enables us to take rolls off the pile in our warehouse and transport them to the corrugating machine room without the use of additional equipment or maneuvering with skids or platforms. We rather like the hydraulic operated lift because it is steady, smooth and may be quite accurately controlled. And of course we like the straight gasoline power because of its economy. Most of the rolls we handle run from 48 inches to 54 inches in diameter and weigh anywhere from 1200 to 2200 lbs. per roll.

In order to complete an accurate picture of our operations, I might give the figures in tabulated form. These figures cover operation of a Towmotor lift truck from September 1937 to May 1938. During this period of approximately 8 months, we moved in excess of 16,000 tons of board with one lift truck. The length of haul, as previously mentioned, runs from 75 to 300 feet and the machine handles from 50 to 100 tons of board per day. The cost tabulation follows:

Original cost of machine	$3,000.00
Repairs to date	122.35
Depreciation 20 per cent per year	600.00
Tonnage handled	16,000 Tons
Repair cost per ton moved	.0075
Gas and oil cost per ton	.02
Total cost per ton handled	.185

While it is possible that we may be figuring too much depreciation, in view of the fact that this truck in the tractor type style operates efficiently for 10 and 12 years of service, we thought it best to figure

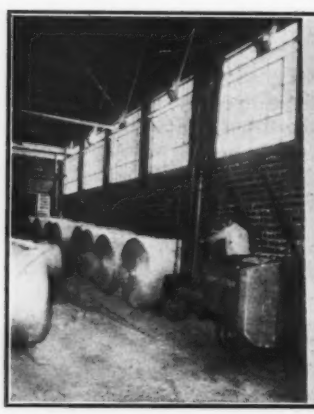


FIG. 1.

FIG. 2.

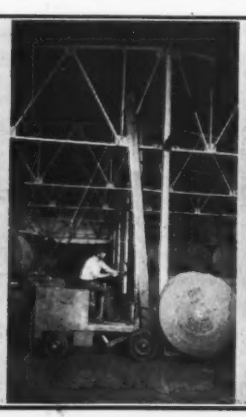


FIG. 3.

FIG. 4.

THE past few years have seen many remarkable advances in the production of specially processed papers. Newer methods of color application had to be developed in order to meet specific conditions. The Du Pont Company has not only kept abreast with the times, but through applied research has added important technical contributions to a progressive paper industry. A few are cited:

- *The establishment of importance of pH control in paper dyeing.*
- *The development of non-two-sided formulas for clay-loaded sheets.*
- *The establishing of formulas for sheets loaded with calcium carbonate and other highly alkaline fillers.*
- *The development of a range of dyes for producing non-two-sided and fast-to-light bond and cover papers.*

These are symbolic of constructive research, and work is constantly in progress to improve existing products and create newer and better ones. Technical experts, versed in paper manufacturing technique, are at the disposal of mills to render service on unusual and intricate application problems.

DU PONT DYESTUFFS
REG. U.S. PAT. OFF.

E. I. DU PONT DE NEMOURS & CO., INC.

Organic Chemicals Department...Dyestuffs Division

WILMINGTON, DELAWARE, U. S. A.

depreciation the same as on our trucks and trailers. At any rate, our total handling cost with this type of gasoline powered hydraulic lift truck was 18½ cents per ton for the first 8 months and we expect no marked variation in the next 8 months.

Fig. 1 shows the lift truck picking up a roll of paper after it has come down the ramp from the box car. Figs. 2 and 3 show the truck approaching the pile with the roll in the slight elevation it has had while traveling to the pile. Fig. 4 shows the roll after being elevated and while the mast is being tilted forward to release it into position on the stack.

Protests Against Reductions in Tariff on Paper in Reciprocal Trade Agreements

Hon. George P. Schneider, member of the House of Representatives from the State of Wisconsin, has sent the following letter protesting against tariff reductions on paper in reciprocal trade agreements to the Hon. Franklin D. Roosevelt, to the Hon. Cordell Hull, Secretary of State, and to the Committee for Reciprocal Information, Hon. Henry Grady, Chairman:—

"At the recent meeting between your committee and the delegation of Congressmen who joined with me in protesting against certain aspects of the proposed reciprocal trade treaty with Canada, you courteously extended to me the privilege of submitting to you my views with regard to the proposed reduction of tariff rates on imports of paper in this proposed trade treaty.

Speaking for the people of the Eighth Congressional District of Wisconsin, which I have the honor to represent in the Congress of the United States, and also for the International Brotherhood of Paper Makers, affiliated with the American Federation of Labor, of which I am vice president, I wish to emphatically protest against any reduction in our present tariff rates on imports of paper, agricultural commodities, and other competitive products from Canada and other countries. This protest deals specifically with paper products, the present rates of duties on which should be retained for the following reasons:

Any reductions in our present tariff rates—

(1) Will be of no benefit to American purchasers of paper.

(2) Will mean loss of work opportunities to many thousands of American workers, or a substantial reduction in their wages—at present none to high.

(3) Will be of little, if any, benefit to Canada as in most instances Canada now exports to the United States but a small percentage of our total imports of such papers now being considered for tariff reductions.

(4) Will be disastrous to many communities as some 65 per cent of American produced papers are now manufactured in paper mills located in communities of less than 25,000 people, and too often the entire community is dependent on the continued operation of such paper mill for its maintenance and welfare.

(5) Means loss of employment opportunities to American workers averaging $1,300 per year and the transfer of the job opportunities of these American workers to workers in Japan paid less than $200 per year, or workers in Finland, paid less than $500 per year, or workers in Sweden paid less than $700 per year.

(6) Means a loss of yearly work to thousands of American railroad workers who are now employed in transporting the millions of tons of raw material used in the manufacture of such papers.

The American paper industry, at present operating at some 60 per cent of capacity, provides direct employment opportunities for some 150,000 American workers as well as providing work opportunities for some 500,000 additional American workers who provide and transport the raw materials used in the manufacture of such papers.

This industry, one of the oldest in the United States, is one of vital national necessity. Every business is dependent upon a proper supply of paper. Education, yes; even entertainment, to a great extent is dependent upon a proper supply of paper. Even our Government is absolutely dependent upon having available a proper supply of paper.

This industry, with some $1,500,000,000 invested, is operating today with little, if any, profit on this investment. The $1,000,000,000 yearly received for the output of American produced paper is returned to American trade in the form of wages paid workers, cost of raw materials, a large part of which is also paid to workers, freight rates, and taxes.

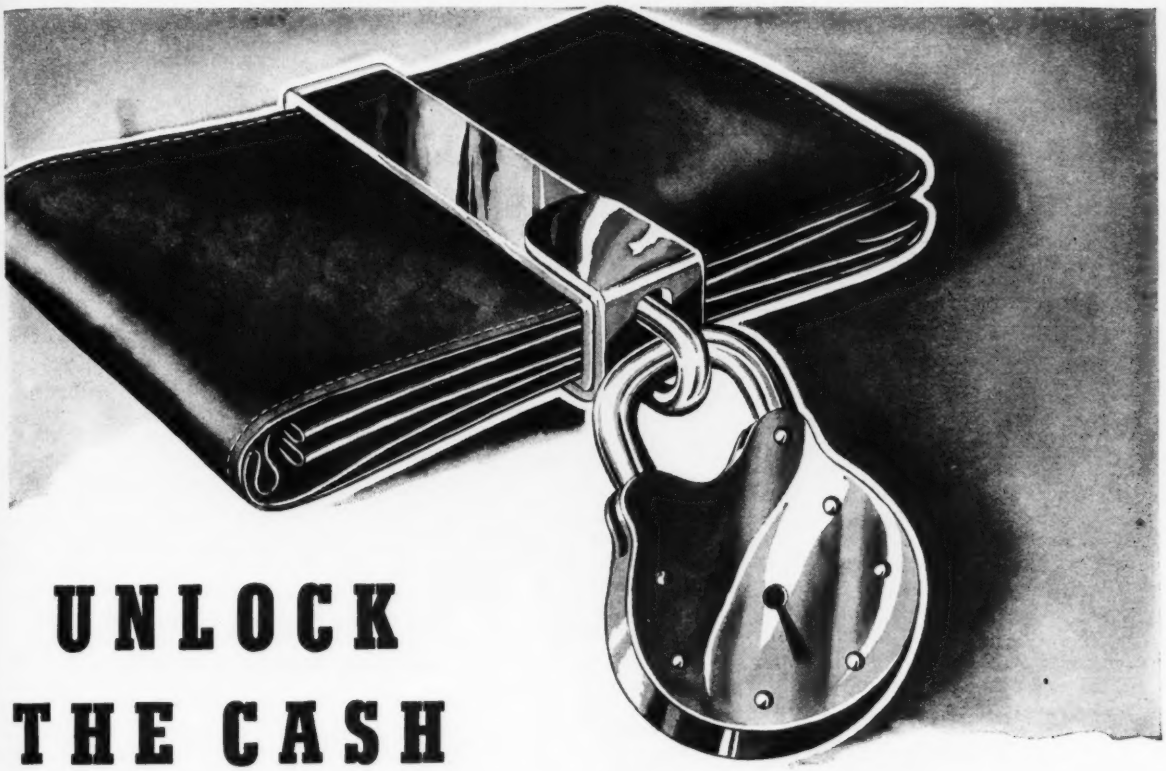
This industry buys a substantial portion of its raw materials from American farmers, supplying them with a cash crop realizable by work in the winter months when farming is impossible.

Most paper mills are located in small communities, far from the great industrial centers, where in most cases the paper mill is the only source of employment for the workers and the wages of such workers support the entire community.

The history of the paper trade is replete with the effects of tariff reductions. Following the reductions of the tariff rates in the 1870's our country was flooded with paper produced by workers in foreign countries while our workers were deprived of their jobs. Again, following the placing of newsprint paper in 1912 on the free list, our workers' jobs were transferred to workers in Canada and other countries.

America holds no monopoly on methods of paper making. We, in the United States, have no industrial or raw material advantage over other countries. High wages paid to American workers are not compensated for by higher mechanization. Japanese and other paper-mill workers work on substantially the same type of machinery, use substantially the same raw materials and produce the same types of paper, comparable in every way with the products of American paper mills.

Prior to 1912, when newsprint paper was placed on the free list, we imported from Canada less than 30,-



UNLOCK THE CASH

YOUR BUSINESS NEEDS

Learn How Many Concerns Now Keep Cash Resources High and Credit Risks Low.

YOU have unused assets in your business that can provide you with immediate liquid capital at low cost and with absolute safeguards against undue credit risks.

Our open account financing plan includes the Limited Loss clause which insures you against all credit loss beyond a small agreed percentage. It involves no "all-or-none" contract. You can discount part, or all of your receivables with us, according to your cash needs. You surrender no part of your business control . . . take in no salaried partner . . . face no maturing loans from time to time, nor the necessity to arrange new ones. Ours is a self-continuing, or immediately terminable plan, at your option. Yet it costs, as a rule, less than the cash discounts you allow your customers.

It will put your business on a cash basis without infringing on your control or inconveniencing your customers. In no case will your customers be notified of the change in your financing. In no way will their method of paying you be disturbed.

You can use your receivables on demand, to strengthen your cash position, improve your credit rating, discount your obligations to suppliers, meet payrolls, pay taxes, and in other profitable ways to promote your business welfare.

Experience has proved that our service gives a flexible, convenient type of financing to meet today's highly competitive conditions.

COMMERCIAL CREDIT COMPANY

Capital and Surplus Over $64,000,000

BALTIMORE

NEW YORK CHICAGO PORTLAND, ORE. SAN FRANCISCO

★

"Capital At Work"

On request we will mail you, without obligation, this concise booklet explaining our service. . . Simply tear this off and mail it, attached to your letterhead.

000 tons of this type of paper. In 1937 our imports of this type of paper was over 3,000,000 tons, or more than 80 per cent of all the newsprint paper used in the United States. During the year 1934, before we entered into reciprocal trade treaties and thereby reduced our tariff duties 33⅓ per cent on imports of kraft paper, we imported 4,000 tons, while in 1936, with our tariff rates reduced 33⅓ per cent, our imports of kraft paper rose to 24,200 tons.

The United States is the world's greatest paper market. The world paper-manufacturing industry is over equipped. At the present time more than 40 per cent of our paper-making capacity is idle. Canada and other foreign countries can produce and sell to American paper distributors the products of foreign workers at a price less than our costs of production, simply because of the lower wages and longer hours which prevail among the workers of these foreign countries. The average wage paid to productive workers in American paper mills is some 65 cents per hour, while the average wage paid to workers in Canadian paper mills is some 54 cents per hour. The average wage paid to workers in European countries is not greater than 32 cents per hour, while the workers in Japanese paper mills, producing the same type of paper, average less than 10 cents per hour.

Were tariff reductions on imports of paper to apply to Canada alone, American workers might retain their present job opportunities by accepting a wage reduction of 10 or 15 per cent in their present none-too-high wages. However, as such tariff reductions also apply to imports of Japanese- and European-produced paper, where wages of from one-half to one-eighth of the wages paid to American workers prevail, the inevitable result of tariff reductions on imports of paper will be that the job opportunities of our American workers will be transferred to these lower paid foreign workers in Japan and European countries.

The records of the Department of Commerce show that reductions in tariff rates on many types of paper under consideration by your committee will not be of any material benefit to Canadian workers, but, will greatly benefit the workers of Japan and some European countries. In one case we find that we imported, in 1937, 625 times more of one type of paper from Japan than we did from Canada, and, in another case we imported, in 1937, some 90 times as much from Japan as we imported from Canada. Our imports of some types of paper in 1937 have increased in quantity, since 1931, more than 1,000 per cent.

In authorizing the making of reciprocal trade treaties with foreign countries the Congress very definitely understood that these trade treaties were to be reciprocal in fact. Surely there is nothing in the authorization granted by the Congress for our entry into reciprocal trade treaties which authorizes our entry into a trade treaty wherein the reductions in tariff rates will apply particularly to countries which supply us at the present time with but a fraction of the imports on which we reduce these tariff rates.

In closing may I suggest that in authorizing our entry into reciprocal trade treaties with foreign countries the Congress specifically understood that such trade treaties would be entered into only when reductions in tariff rates would increase the job opportunities of American workers. Surely, the workers in an industry, vitally necessary to our well-being should not be deprived of their present job opportunities on a wild gamble that some other workers might possibly secure a few jobs.

Empire State TAPPI Elects Officers

The Empire State Section of the Technical Association of the Pulp and Paper Industry met at Watertown, N. Y., Saturday, June 4, 1938.

A golf tournament was held in the afternoon at the Jefferson Country Golf Club. In the evening at the Hotel Woodruff, John Tuttle, Director of the Processing Division of the Standard Oil Company of New Jersey talked on "The Uses of Petroleum in the Paper Industry." C. E. Libby of the New York State College of Forestry presided as chairman.

The following officers were elected for 1938-1939: Chairman—John H. Rich, Newton Falls Paper Company, Newton Falls, N. Y.; Vice Chairman—Robert F. Huntley, Oswego Falls Corporation, Fulton, N. Y.; Secretary-Treasurer—Frank G. Calkin, the Solvay Process Company, Syracuse, N. Y.; Executive Committee—C. E. Libby, Carl F. Richter, Stebbing Engineering and Manufacturing Company, Watertown, N. Y.; Harvey P. Cannon, the Upson Company, Lockport, N. Y.; and Everett G. Ham, John A. Manning Paper Company, Troy, N. Y.

Among those present were: W. J. O'Brien, G. E. Osterheldt, F. W. O'Neill, Fred Waite, W. O. Hisey, E. J. Johnstone, J. H. O'Connell, A. B. Julin, Mr. and Mrs. H. P. Cannon, M. W. Phelps, John Schuber, C. E. Libby, R. H. Fischer, R. Nelson Rose, Mr. and Mrs. James Brennon, Mr. and Mrs. E. W. Gutliph, Mr. and Mrs. W. E. Bailey, T. E. Knowlton, Mr. Penick, J. C. Barthel, A. W. Shanfelter, Nelson Hansen, M. J. Maguire, W. R. Benson, Ken Gallinger, B. W. Ellis. S. J. Young, Mr. and Mrs. E. O. Knapp, Mr. Pennock, J. D. Parmalee, Mr. and Mrs. R. H. Fisher, Thomas Gerace, C. Kinne, Mr. and Mrs. Homer M. Rice, Mr. and Mrs. C. F. Richter, Mr. and Mrs. E. F. Tucker, Edward M. Root, Mr. and Mrs. J. D. Haskell, Mr. and Mrs. H. W. Duggan, Mr. and Mrs. H. D. Cook, C. T. Jewell, Mr. and Mrs. J. H. Rich, Dexter Williams, F. M. Williams, Mr. and Mrs. F. G. Calkin, Mr. and Mrs. M. H. Bennett, Mrs. A. F. Richter, Mrs. Jane Hall, Mr. and Mrs. H. Thayer Murphy, E. J. Thorn, Mrs. M. G. Barnette, R. F. Huntley, C. E. Foster, Mr. and Mrs. F. C. Goodwall and Mr. and Mrs. Walter Gyles.

Argentina Envelope Industry Busy

[FROM OUR REGULAR CORRESPONDENT]

WASHINGTON, D. C., June 8, 1938 — The manufacture of envelopes in Argentina is an important branch of the converting paper industry. There are approximately 30 firms in Buenos Aires alone engaged in making envelopes of every type, size, and description for all purposes, according to a report from the office of the American Consulate General, Buenos Aires. Imported paper is extensively used for these envelopes and the demand for every required quality can be readily supplied, thus obviating any necessity for importation. According to official import statistics, no envelopes have been imported into Argentina over the past several years. The commercial envelopes used in Argentina extend through a wide range of sizes and qualities, with a corresponding range in prices.

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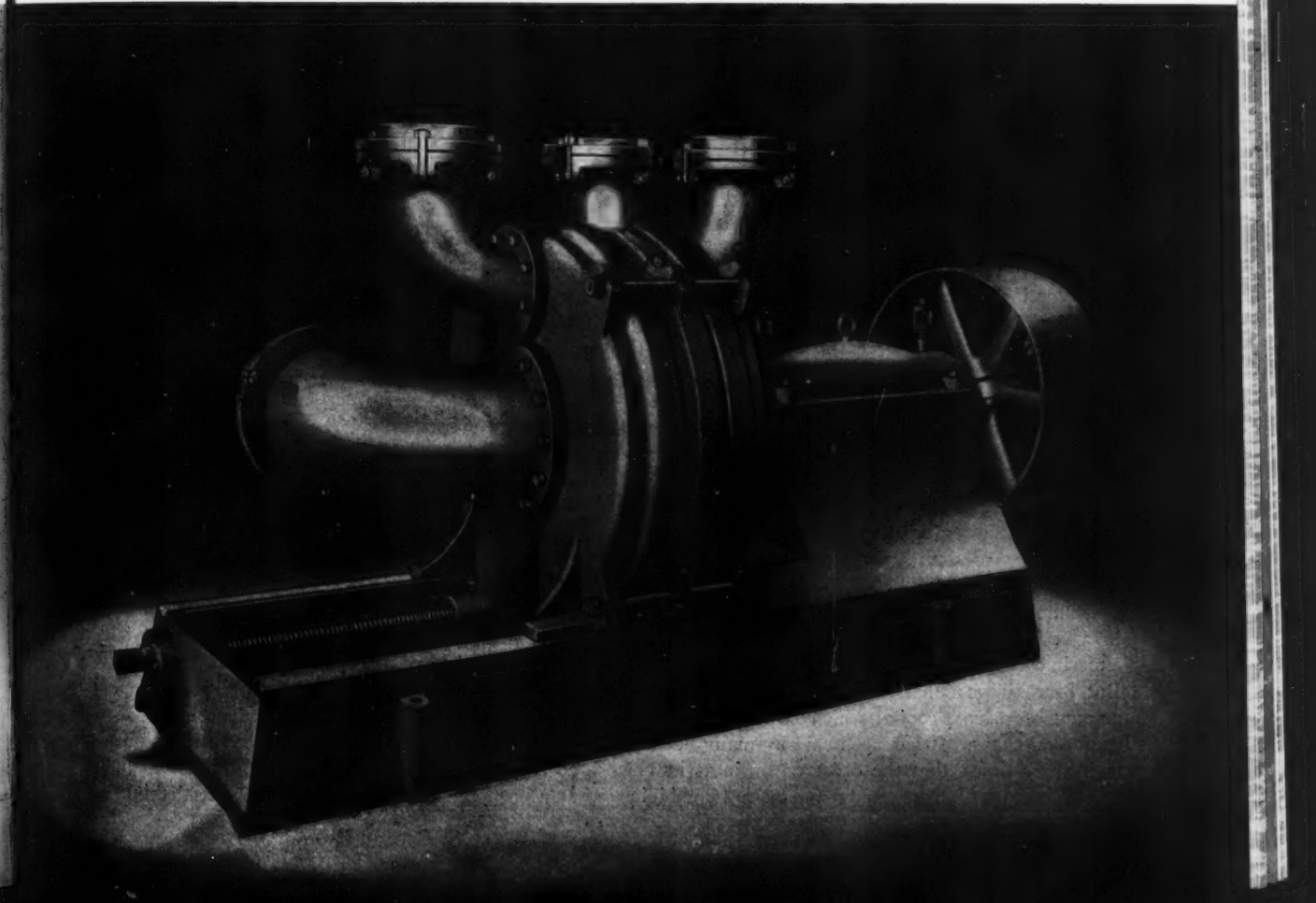

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COMING EVENTS IN THE PAPER INDUSTRY

TECHNICAL ASSOCIATION OF THE PULP AND PAPER INDUSTRY. Fall meeting, Northland Hotel, Green Bay, Wis., September 8-10.

NEW ENGLAND SECTION. Technical Association of the Pulp and Paper Industry—Third Friday of each month at the Nonotuck Hotel, Holyoke, Mass.

DELAWARE VALLEY SECTION. Technical Association of the Pulp and Paper Industry—Second Friday of each month at the Engineers Club, Philadelphia, Pa.

LAKE STATE SECTION, Technical Association of the Pulp and Paper Industry—Second Tuesday of each month at the Conway Hotel, Appleton, Wis.

KALAMAZOO VALLEY SECTION, Technical Association of the Pulp and Paper Industry—First Thursday of each month at the Park, American Hotel, Kalamazoo, Mich.

AMERICAN PULP AND PAPER MILLS SUPERINTENDENTS ASSOCIATION. Annual meeting, Royal York Hotel, Toronto, Ont., June 22-24.

SPENDING-LOANING BILL

From Washington comes the unwelcome, if not wholly unexpected news that the House and the Senate are not in opposition to the measure and that the Roosevelt Administration will soon begin its second pump-priming program for business recovery. As the spending of new expenditures of $3,723,000,000 are about to start the heads of the W.P.A., A.A.A. and the P.W.A. express much the same opinions as on the opening of the first pump-priming offensive to defeat the depression namely, that the new drive will result in renewed business activity.

It is unfortunate for the prosperity of the country that the Administration cannot understand that what the country needs is merely a return to normal private spending. Three or four billion dollars is a vast amount of money for the Government to spend in a reckless attempt to win success when its first experiment failed to provide permanent recovery. But four billion dollars is a very small part of the amount of private capital which flows into industry in normal times. It has been said by many business men many times, that the deferred business in new utility construction amounts to over two billion dollars. This "lag" in the utility field is due to the threat of Government competition. Since 1932, the Government has allocated a large amount of money for the construction of publicly owned power projects. A fund of over $145,000,000 has been reserved for the construction of more than 275 power plants in all parts of the country. Doubtless many of the railroads are in dire need of aid by the Government as are some industrial enterprises, all of whom must apply to the Government for loans, since their financial straits are too desperate to attract the public by offerings of stocks and bonds in these nearly insolvent companies. But the major need of today is confidence rather than loans. If the Roosevelt Administration can restore the waning confidence of business men and private investors in its policies, the funds now only in part going into Government and other bonds would again be invested to create more business and employment.

The emphasis placed by President Roosevelt on the necessity of Government, rather than on private spending which has always been the basis of prosperity in this country, is one of the important reasons why business men lack confidence in the future under the socialistic theories of the New Deal. A change from the processes of democratic principles under which this country has developed into the greatest nation in the world, seems now impending. Under increasing Government control and regulation during the last eight months, this fear of a change has undermined confidence and continues to destroy faith in the Administration and its objectives.

President Roosevelt has said that expenditures must continue to support a $7,000,000,000 annual budget, although revenue has never reached anywhere near that amount. The direct national debt is now about $38,000,000,000. To continue expenditures at the present rate is likely to lead to but one result—instead of balance the budget, which is impossible under this condition, a change must come.

In November 1937, Dr. John H. Williams, professor of economics at Harvard University said, in part, quoted in a former editorial, in reference to government spending: "We are told by some of the experts in this field that if you count up Federal, local and state expenditures, you get a figure in the neighborhod of 17 billions a year, which is 25 per cent or more of the national income. . . . At what point do you find it necessary to do what a business has to do, that is to set over against expenditures the income resulting from a particular type of operation which is expected to cover costs and yield a profit? I do not know the answer to that question.... But when you start from a level of public expenditure which is 25 per cent or more of the whole national income, you are faced sooner or later at some point with that question. I do not know at what point it would arise, but I should think that

somewhere between that and 50 per cent it would arise. It would have to arise."

The fear of the possibility that our national economy may be run on a business basis by Government, is a fundamental reason why industry and trade lacks confidence in the Administration. The fact that President Roosevelt has not given contrary assurance to dispel this growing fear cannot but constantly add to the lack of trust which business has in the policies of the Administration and what it may hope to achieve through them.

In commenting on the spending program, Henry H. Heimann, executive manager of the National Association of Credit men, before 2,000 delegates attending the Association's 43rd annual credit congress in San Francisco, Cal., June 6, said in part: "The need for the lending portion of the program, except in certain instances, can and should be seriously questioned. Can it do the expected job unless credit requirements are relaxed? And if credit requirements are relaxed, then why not describe it accurately? Instead of calling it a lending program let us truly label it our National Donation Fund."

Donald Bradner on Executive Committee

HAMILTON, Ohio, June 6, 1938—Donald Bradner, director of research and development, Champion Paper and Fibre Company, Hamilton, and a member of the Technical Association of the Pulp and Paper Industry, has been named a member of the executive committee of the newly formed Industrial Research Institute, a national organization composed of scientific research executives of industrial corporations.

The institute was established as the result of a factual survey which indicated a need for an organization of industrial research executives, so that they might have an opportunity to discuss common problems relating to laboratory organization and administration.

Scientific research men from many fields of industry are members of the institute which was formed following a number of preliminary meetings at the Engineers' Club, New York.

Court Reverses Order in Dexter Co. Case

DEXTER, N. Y., June 6, 1938.—Announcement is made here that the Appellate Division has reversed the order of Supreme Court Justice, of Syracuse, in the case of the Dexter Sulphite Pulp and Paper Company. The action was started by Mrs. Florence E. Campbell and Mrs. Alice M. Campbell, of this city, against President Bernard A. Gray and other officers of the concern to compel delivery of 1,087 shares of stock to each of the plaintiffs. After the suit started the plaintiffs applied for the appointment of a receiver for the company and Judge Cregg appointed Attorney Martin J. Quinn, of Syracuse, referee to take evidence whether there should be a receiver. The Appellate Division in reversing that order grants a victory to the defendant. Attorneys Phelps, Hudson & Wise represented the defendants and Attorneys Lessen & Ginnelly, of Syracuse, the plaintiffs.

Production Ratio Report

These statistics are based upon paper production reports to the American Paper and Pulp Association.

COMPARATIVE MONTHLY SUMMARIES

Months	1938(c)	1937(c)	1936	1935	1934
January	63.9%	90.3%	76.1%	65.8%	.....
February	68.7%	90.1%	77.9%	70.0%	.....
March	69.6%	90.3%	76.0%	70.5%	.....
April	67.9%	92.1%	82.3%	70.0%	.....
May	68.3%	90.6%	81.6%	69.4%	.....
June	.....	87.3%	80.7%	72.3%	.....
July	.....	81.8%	77.3%	64.9%	.....
August	.....	82.9%	81.5%	70.9%	.....
September	.....	78.6%	80.5%	71.9%	58.2%
October	.....	73.5%	87.6%	75.6%	64.7%
November	.....	61.9%	88.0%	75.3%	61.7%
December	.....	54.5%	85.9%	71.2%	59.6%
Year Average	.....	80.6%	81.3%	70.5%	.....
First 21 Weeks	67.7%	90.7%	78.8%	69.0%	.....

COMPARATIVE WEEKLY SUMMARIES

CURRENT WEEKS, 1938		CORRESPONDING WEEKS, 1937	
*April 23	66.9%	April 24	90.9%
*April 30	70.1%	May 1	91.6%
*May 7	66.3%	May 8	89.5%
*May 14	67.9%	May 15	90.9%
*May 21	70.0%	May 22	91.2%
*May 28	69.2%	May 29	90.8%

The following statistics show the number of mills reporting by ratio groups:

	Number of Mills Reporting, Current Weks					
	Apr. 23,	Apr. 30,	May 7,	May 14,	May 21,	May 28,
Ratio Limits	1938	1938	1938	1938	1938	1938
0% to 50%	114	101	105	89	91	59
51% to 100%	195	209	199	211	202	124
Total Mills Reporting	309	310	304	300	293	183

* Subject to revision until all reports are received.
(c) Basic capacity data have been adjusted to correspond with ratings reported by individual companies.

PAPERBOARD OPERATING RATIOS

According to reports from the National Paperboard Association, per cents of operation, based on "Inch-Hours", were as follows:

Mos.	1938 (e)	1937 (e)	1936	1935	Mos.	1938 (e)	1937 (e)	1936	1935
Jan.	55%	80%	61%	61%	July	....	67%	69%	59%
Feb.	61%	86%	67%	67%	Aug.	....	74%	75%	65%
Mar.	60%	87%	68%	67%	Sept.	....	70%	76%	69%
Apr.	57%	89%	70%	61%	Oct.	....	66%	82%	76%
May	....	86%	68%	61%	Nov.	....	56%	79%	70%
June	....	75%	68%	65%	Dec.	....	46%	74%	60%

Week end. Apr. 23, 1938—54%
Week end. Apr. 30, 1938—59%
Week end. May 7, 1938—57%
Week end. May 14, 1938—56%
Week end. May 21, 1938—58%
Week end. May 28, 1938—60%

(e) Basic figures revised to include new members of the National Paperboard Assn.

To Make Pulpwood Surveys in B. C.

[FROM OUR REGULAR CORRESPONDENT]

VANCOUVER, B. C., June 6, 1938.—Aerial surveys of pulpwood resources in northern British Columbia will both be carried out by the Provincial Government this year. Two main forest survey parties have been sent out. One will complete ground reconnaissance on Moresby Island under C. W. Phillips, and the other under G. S. Andrews will conduct an aerial photographic survey of pulpwood resources along the tributaries of the Skeena River in the Prince Rupert area, covering some 8000 miles of flying.

Marvellum Co. Issues New Samples

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., June 6, 1938.—The Marvellum Company, Holyoke, Mass., has issued 13 new sample books of box coverings, including a juvenile Christmas paper and another Christmas cretonne paper. These books represent a fairly wide field of attractive papers. Henry L. Goodman, Boston distributor, has sent these books to his entire clientele.

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Section of the Technical Association of the Pulp and Paper Industry

Edited by Ronald G. Macdonald, Secretary

Sulphite Pulps from the Top, Middle and Butt Logs of Western Hemlock of Four Growth Types

By J. N. McGovern[1] and G. H. Chidester[2]

Abstract

The results of pulping top, middle, and butt logs of four growth types of western hemlock show significant differences in the yield and quality of the pulps from the different portions of the trees, particularly with respect to the top logs. The pulp yield followed the trend of the cellulose and alpha-cellulose contents, which decreased from the butts to the tops, as did the proportion of summerwood, but appeared in no way related to the respective densities of the top, middle, and butt logs. No other regular variation was noted in the physical or chemical properties of the wood samples with respect to their positions in the trees.

The bursting strengths of the pulps from the top logs were slightly inferior to those from the middle and butt logs while the tearing strengths were substantially lower in accordance with the trend toward a higher springwood content. The tensile strength, on the other hand, increased from the butts to the tops.

Introduction

The vertical position of wood in a tree is one of the many wood variables that may influence the yield and quality of wood pulp through the attendant variations in the proportion of springwood, chemical compositions, density, fiber dimensions, or perhaps other less-known factors. In this report a comparison is made of sulphite pulps from the top, middle, and butt logs of western hemlock *(Tsuga heterophylla)* of four growth types.

It is true that a large tonnage of sulphite pulp of excellent quality is being produced from western hemlock. However, it is believed that better knowledge of wood property effects may well lend itself to eventual improvement in the quality of the wood as well as to development of refinements in pulping. Results of this kind have already been realized with other species.

Experimental Part

The relation between the vertical positions of wood samples in western hemlock trees and the yield and properties of sulphite pulp was examined experimentally by means of digestions of the top, middle, and butt logs of western hemlock trees of four growth types.

The digestion conditions, held constant throughout the study, were as follows: The temperature schedule employed was based upon the results of earlier successful pulping tests with the same species and consisted of a rise to 110 deg. C. in 1.5 hours, holding at that temperature for an additional hour, a rise from 110 to 140 deg. C. in 1.5 hours more, and holding at 140 deg. C. for 5.5 hours; the total digestion time, then, was 9.5 hours. The acid contained 5.5 per cent total and 1.15 per cent combined sulphur dioxide. The maximum pressure was 75 pounds per square inch. Indirect steam only was used.

The top, middle, and butt logs of different western hemlock trees as received at the Laboratory were chipped in the usual way to ⅝-inch chips. The trees were supplied by the Pacific Northwest Experiment Station and differed in growth type; (1) old and (2) young rapid-growth, and (3) old, and (4) young slow-growth trees comprised the types of growth studied. Data on the physical and chemical properties of the wood of particular interest in this report are found in Table I.

The use of four baskets in each digestion enabled the pulping of either the top, middle, or butt portions of the wood of the four growth types at the same time. Three check digestions were made on chips from each group of top, middle, and butt logs. The yield of each basket pulp was determined individually but the triplicate basket pulps for each of wood from the different portions of the tree were mixed in order to give sufficient pulp for the evaluation of the pulp properties.

The digestions were carried out in the customary manner in semicommercial pulping equipment of 50 pounds capacity. *(2)*.

The bleach requirement of the pulps was determined by the single-stage, hypochlorite method. The amount of standard bleach powder necessary to bleach the pulp to a standard color of 85 parts blue, using the Ives tint photometer, was used as the standard of comparison. Both pebble mill and beater

[1] Member TAPPI, Asst. Technologist, Forest Products Laboratory, Forest Service, U. S. Dept. of Agriculture, Madison, Wis.
[2] Member TAPPI, Engineer, Forest Products Laboratory, Madison, Wis.

strength tests were run on the combined pulps; the processing and testing followed standard TAPPI methods *(1)*. Only the beater results are presented, since similar trends were shown by the results of the beater and pebble mill processing. In order to facilitate the strength comparisons, the various strength factors were plotted against the freeness values developed during the processing. The figures at 800 and 550 cc. freeness values were used in comparing the pulp strengths (Table II).

Discussion

Wood Evaluation

The logs from different vertical portions of the trees used in the experiments varied in certain respects in their physical and chemical properties as shown in Table I. The two trees classified as young showed certain consistencies which set them apart from the two older trees.

Young Trees

The top and butt logs in each of the young trees were quite similar in density, springwood content, and growth rate, while the middle logs had a lower density but a higher springwood content and growth rate.

The cellulose content decreased from the butt to the top in the slow-growth wood but was highest in the middle log of the rapid-growth wood; the alpha cellulose decreased from butt to top in both cases.

The lignin contents, on the other hand, were regularly higher for the middle logs than for the top or butt logs which were the same.

In the rapid-growth wood the values for the extractives were highest in the butt logs and alike in the middle and top logs. In the slow-growth wood the values were lowest in the middle log and highest in the top log, except for the hot water solubility value which was highest in the butt log.

Old Trees

As in the case of the two younger trees the densities of the middle logs of the two trees of the old age class were lower than those of the top and butt logs. The springwood content, however, increased toward the top in one case and was lowest in the middle of the other. The growth rate decreased toward the top in both cases.

The chemical properties of the old, slow-growth tree exhibit fairly orderly arrangement with regard to the position of the logs in the tree. The cellulose and alpha cellulose contents decreased and the pentosan and extractive contents increased from the bottom to the top of the tree; the lignin content did not vary greatly.

The old rapid-growth tree had rather inconsistent chemical properties. The cellulose content was highest in the middle log and lowest in the top log, the alpha cellulose content decreased from butt to top log while the pentosan content had a reverse order, and the lignin content was highest in the middle log. Although the values for extractives did not vary greatly they were slightly lower for the middle logs.

Pulp Yield and Properties

The pulps from the top, middle, and butt portions of the trees of different growth types varied to some extent in yield and physical properties. The detailed data pertaining to these pulps are presented in Table II.

The wood from the middle parts of the different trees appeared to pulp slightly more rapidly than the wood from the top and butt portions, since for equal pulping times (all other digestion conditions being constant) the pulps from the middle logs required an average of 3 per cent less standard bleaching powder than did those from the tops and butt logs.

Yields of Pulp

The pulp yields from the top portions of the trees of various growth types were in all cases lower than the yields from the corresponding middle logs and, with one exception, (the yield from the butt log of the young, rapid-growth tree) were lower than the yield from the corresponding butt logs. The yields of pulp from the middle logs in turn, with the same exception, were somewhat lower than the yields from the butt logs, although if allowance is made for bleach requirement differences, the variation is not so marked.

The greatest difference in yield with position of the wood sample in the tree was found in pulping the old, slow-growth wood; in this case the middle log yielded 8.1 per cent, and the butt log 11.8 per cent more pulp (on pulp basis) than did the top log. The least difference in yield with position of the wood sample in the tree was noted in pulping the young, rapid-growth wood; in this case the middle log yielded 2.0 per cent more and the butt log 1.3 per cent less pulp than the top log. The middle and butt logs of the old, rapid-growth and the young, slow-growth trees gave practically the same yields, while the pulp yields from the top logs of these same trees were lower than those from the middle logs by 5.7 and 5.4 per cent, respectively.

The averages of the yield from the top, middle, and

TABLE 1.—PHYSICAL AND CHEMICAL PROPERTIES OF TOP, MIDDLE, AND BUTT LOGS OF WESTERN HEMLOCK OF FOUR GROWTH TYPES

	Growth type				Spring-wood con-tent,					Pentosans		Extractives			
Position in tree	Growth class	Age class	Growth rate, Rings per inch	Density Lbs./ cu. ft.	Per cent	Age Years	Cellulose Per cent	Alpha cellulose Per cent	Lignin Per cent	Total Per cent	In cellulose Per cent	Alcohol benzol Per cent	Ether Per cent	1 per cent NaOH Per cent	Hot water Per cent
Butt	Rapid	Old	12.7	26.0	63	182	58.3	41.3	28.2	9.0	6.0	3.2	0.8	13.0	4.0
Middle	Rapid	Old	14.0	23.0	66	137	59.2	41.0	29.5	9.4	5.3	3.1	.6	12.5	3.5
Top	Rapid	Old	19.8	25.1	73	76	56.9	40.6	28.5	10.0	7.4	2.5	.6	13.6	4.0
Average	Rapid	Old	15.5	24.7	67	132	58.1	41.0	28.7	9.5	6.2	2.9	.7	13.0	3.8
Butt	Slow	Old	42.4	26.9	65	392	58.8	42.4	28.2	8.3	5.6	5.0	0.9	12.5	3.8
Middle	Slow	Old	46.3	25.9	60	320	56.2	41.3	28.2	8.4	5.1	6.6	1.1	14.8	4.9
Top	Slow	Old	49.4	27.1	70	198	53.9	39.2	28.5	9.1	6.9	7.1	1.5	16.1	6.7
Average	Slow	Old	46.0	26.6	65	303	56.3	41.0	28.3	8.6	5.9	6.2	1.2	14.5	5.1
Butt	Rapid	Young	10.3	26.8	61	100	59.0	42.4	28.5	8.8	6.3	3.5	0.7	12.9	4.0
Middle	Rapid	Young	9.4	23.6	70	75	59.9	42.1	29.5	8.8	5.3	2.1	.2	11.3	2.6
Top	Rapid	Young	10.5	25.2	65	50	59.4	41.6	28.5	9.2	3.6	2.1	.4	11.4	2.7
Average	Rapid	Young	10.1	25.2	65	75	59.4	42.0	28.8	8.9	5.1	2.6	.4	11.9	3.1
Butt	Slow	Young	25.5	30.1	54	120	61.6	45.1	28.4	8.6	5.4	1.9	0.5	10.8	2.5
Middle	Slow	Young	23.9	27.6	58	79	61.0	45.0	29.3	8.9	5.1	1.3	.3	10.4	1.3
Top	Slow	Young	25.5	29.0	54	56	60.8	44.2	28.7	8.5	5.8	3.1	.8	11.2	1.5
Average	Slow	Young	25.0	28.9	55	85	61.1	44.8	28.8	8.7	5.4	2.1	.5	10.8	1.8
Averages of all growth types															
Butt			22.7	27.4	61	198	59.4	42.8	28.3	8.7	5.8	3.4	0.7	12.3	3.6
Middle			23.4	25.0	64	153	59.1	42.4	29.1	8.9	5.2	3.3	.5	12.2	3.1
Top			26.3	26.6	66	95	57.8	41.4	28.5	9.2	5.9	3.7	.8	13.1	3.8

TABLE II.—SUMMARY OF RESULTS ON EFFECT OF SULPHITE PULPING OF TOP, MIDDLE, AND BUTT LOGS OF WESTERN HEMLOCK OF FOUR GROWTH TYPES

Wood			Pulp yield			Bleach required for 85 parts blue	Beater strength tests (25 x 40—500 ream)									
							Bursting strength		Tearing strength		Tensile strength		Solid fraction		Beating time	
	Growth type						Freeness S. R.		Freeness S. R.		Freeness S. R.		Freeness S. R.		Freeness S.R.	
Position in tree	Age class	Growth class	Total Per cent	Screened Per cent	Screenings Per cent	Per cent	800 cc.	550 cc.	800 cc.	550 cc.	800 cc.	550 cc.	800 cc.	550 cc.	800 cc.	550 cc.
							Pts./lb./ream		G./lb./ream		Lbs./sq. in.				Minutes	
Top	Old	Rapid	42.2	41.5	0.7	15	1.09	1.28	1.30	1.10	7,300	9,500	0.48	0.54	17	60
Middle	Old	Rapid	44.2	44.1	.1	11	1.10	1.39	1.85	1.55	7,100	8,800	.47	.52	16	55
Butt	Old	Rapid	44.6	44.4	.2	14	1.10	1.30	1.80	1.45	6,700	8,600	.48	.54	20	56
Average	Old	Rapid	43.7	43.3	.4	13	1.10	1.32	1.65	1.37	7,033	8,967	.48	.53	18	57
Top	Old	Slow	40.4	39.7	.7	16	1.06	1.30	1.35	1.15	7,700	9,700	.48	.54	16	58
Middle	Old	Slow	43.1	42.9	.2	10	1.10	1.36	1.75	1.50	7,800	9,700	.49	.56	18	56
Butt	Old	Slow	44.9	44.4	.5	12	1.18	1.39	1.75	1.50	7,000	10,700	.50	57	18	37
Average	Old	Slow	42.8	42.3	.5	13	1.11	1.35	1.62	1.38	7,500	10,033	.49	.56	17	50
Top	Young	Rapid	45.0	44.7	.3	14	1.06	1.28	1.35	1.30	7,800	9,600	.51	.56	22	59
Middle	Young	Rapid	45.9	45.6	.3	13	1.19	1.40	1.77	1.50	7,300	10,000	.50	.57	22	61
Butt	Young	Rapid	44.5	44.1	.4	17	1.14	1.36	1.90	1.40	7,700	10,400	.51	.57	22	62
Average	Young	Rapid	45.1	44.8	.3	15	1.13	1.35	1.67	1.40	7,600	10,000	.51	.57	22	61
Top	Young	Slow	45.8	45.5	.3	16	1.10	1.28	1.35	1.25	6,800	10,300	.48	.55	18	55
Middle	Young	Slow	48.2	48.1	.1	12	1.10	1.36	1.92	1.70	6,950	9,850	.50	.55	22	62
Butt	Young	Slow	48.9	48.7	.2	16	1.10	1.32	2.00	1.65	7,200	8,400	.47	.53	22	56
Average	Young	Slow	47.6	47.4	.2	15	1.10	1.32	1.78	1.53	6,983	9,516	.48	.54	21	58
Top	Average.....		43.3	42.8	.5	15	1.08	1.28	1.34	1.20	7,400	9,775	.49	.55	18	58
Middle	Average.....		45.4	45.2	.2	12	1.12	1.38	1.82	1.58	7,300	9,550	.49	.55	20	58
Butt	Average.....		45.7	45.4	.3	15	1.13	1.34	1.86	1.50	7,150	9,525	.49	.55	20	53

butt logs of the trees of the four growth types showed that the top logs yielded 5.3 per cent less pulp than the middle logs and that the middle logs and butt logs yielded practically the same amount of pulp.

The difference in yield from trees of different growth types were sometimes greater than differences in yield from the top and butt log of the same tree; the pulp yield from the middle log of the young, slow-growth wood, for instance, exceeded that from the young, rapid-growth and old, slow-growth woods by 5.5 and 12.1 per cent, respectively.

The pulp yields were closely related to the springwood, alpha cellulose, and cellulose contents of the corresponding woods. As the springwood content of the wood increased, the general trend was toward a decrease in yield; an exception, however, is the springwood content—pulp yield relation obtained from the young, rapid-growth wood, which showed the opposite trend. As both the alpha cellulose and cellulose contents of the woods increased, the yield of pulp increased in nearly all cases; the alpha cellulose content of the butt log of the young, slow-growth wood is possibly an exception to this trend, being somewhat high in comparison with the pulp yield.

There appeared to be no simple relation between the yield of pulp from the top, middle, and butt logs and their respective densities for either the individual trees or the average of the four trees studied.

Strengths of Pulp

The physical properties of the pulp from the top, middle, and butt logs also differed in certain respects. Allowing for the small bleach requirement differences, the bursting strength data showed that with one exception the pulps from the middle logs were superior to those from either the top or butt logs. The butt log of the old, slow-growth tree, was the exception. This log yielded a pulp of only slightly higher bursting strength than that of the pulp from the middle log. The pulps from the top logs had the lowest bursting strength values. The bursting strength data did not show a very close relationship to the springwood contents of the woods.

The tearing strength values of the pulps from the middle and butt logs were approximately the same and were substantially higher than those of the pulps from the top logs. While the tearing strength values of the pulps from the top logs were somewhat lower than might be expected from their relative springwood contents, the general trend indicated the lower tearing strengths usually obtained with increasing springwood.

In general, only small differences were found in the tensile strengths of the pulps from the top, middle, and butt logs. Although the average values show a slight increase in tensile strengths from the butt to the top this trend did not hold in all the individual cases.

The solid fraction and beating time data were approximately the same for the pulp from the top, middle and butt logs.

Literature Cited

(1) Testing methods—recommended practices—specifications of the Technical Association of the Pulp and Paper Industry. New York, N. Y.
(2) McGovern, J. N. Paper Trade J. 103 (20): 297-310 (November 12, 1936).

TAPPI Notes

The Delaware Valley Section of the Technical Association of the Pulp and Paper Industry will hold its annual dinner-dance at the Bala Country Club, 50th Street and Woodbine Avenue, Philadelphia, at 7 P. M., Friday, June 17, 1938. There will be golf in the afternoon.

E. C. Lathrop has resigned as Technical Director of the Crown Zellerbach Corporation to become Vice President of the Celotex Corporation, Chicago, Ill.

The TAPPI Bibliography of Microscopy, by John B. Calkin, may now be obtained from TAPPI, at fifty cents per copy.

Volumes III and IV of the Manufacture of Pulp and Paper, which have recently been revised, may be obtained from TAPPI, 122 East 42nd street, New York, N. Y., at $6.50 per copy.

The booklet "Vocational Training in the Pulp and Paper Industry" may now be obtained from TAPPI, at 25 cents per copy.

Anyone desiring to present a paper, at the fall meeting of the Technical Association, should immediately notify R. G. Macdonald, 122 East 42nd street, New York. The meeting will be held at Green Bay, Wis., September 8-10, 1938.

F. A. Augsbury Reported Improved

OGDENSBURG, N. Y., June 6, 1938.—The condition of Frank A. Augsbury, president of the Algonquin Paper Company, who has been ill for some time, is reported this week as slightly improved. He has been seriously ill and has been unable to attend his business duties for the past few weeks. His many friends are hopeful for an early recovery.

Relation of Growth Characteristics of Southern Pine to Its Use in Pulping*

By C. E. Curran[1]

The current expansion of the pulp and paper industry in the South gives rise to varied expectations according to the experience, background, or personal interest of the observer.

The proponents of an industrial South view the spectacle of new and larger pulp mills with justifiable optimism, considering the investments which they bring, the jobs which they provide, and the income and taxes which they contribute, all built on a foundation of widespread pine resources. In contrast, a certain degree of anxiety may be felt by those industries with which the pulp mills will compete for wood. Foresters, too, have expressed some concern about a situation that might mean the progressive destruction of young pine stands and ultimate loss of all the values they represent.

Both points of view must be fully considered. Undoubtedly this development will contribute much to the prosperity of the southern states. It is going to bring money into the pockets of the farmers and timber producers and to the laborers who find work in the mills. Just as surely, unless timely action is taken, it is going to create a lively hazard of denuding the very forest lands whose rich promise induced the mills to come South in the first instance.

The latter result would disappoint the hopes of many people, including those of us who have made the pulping of southern pines almost a life-time study. More than 25 years ago the Forest Products Laboratory conducted pioneer investigations in the then new sulphate process as it applies to southern pines, and we feel that our work has been a potent influence in the tremendous growth of the southern industry that has followed the use and adaptation of that process. In subsequent research we have developed methods of making white papers from the pines. We have participated in the current experiments relative to newsprint production from southern woods, including the use of semibleached sulphate pulp, which we consider the most promising answer to the whole southern newsprint problem. Throughout the course of these and many other experiments our view has always been toward the development of southern pulpwood resources not as a bonanza for quick exploitation but as a productive and self-renewed asset of the country.

As a member of the Forest Service I believe—and I think you share our belief—that by a proper approach to the problem, by suitable steps toward conserving, harvesting, and reproducing the forest growth, adequate supplies of wood for any reasonable utilization can be assured. Such steps will provide a permanent source of income to the farmer, the landowner, and the community. This is the forest crop principle, the issues of which are squarely before us today. In establishing the crop system, the information and influence which agricultural extension workers are able to bring to bear will be very nearly all-important.

A prerequisite to intelligent management of any crop is an understanding of the use value and possibilities of that crop as affected by its manner of growth; and it is my purpose to throw a little light on this question with respect to the pine wood crop and what it is good for in pulping processes. Both the farmer's interest in a profitable woodlot and the industry's interest in a permanent and adequate wood supply rest on one basic conception. This is the realization that wood, like any other natural product, is variable in growth characteristics, and that such characteristics are just as important in the use value of wood as in any other farm crop—spring wheat and winter wheat or sea-island and upland cotton, for instance.

* Presented before the annual meeting of the Association of Southern Agricultural Workers at Atlanta, Ga., February 3, 1938.

[1] Member TAPPI, Principal Chemist, In Charge, Section of Pulp and Paper, Forest Products Laboratory, Forest Service, U. S. Department of Agriculture, Madison, Wis.

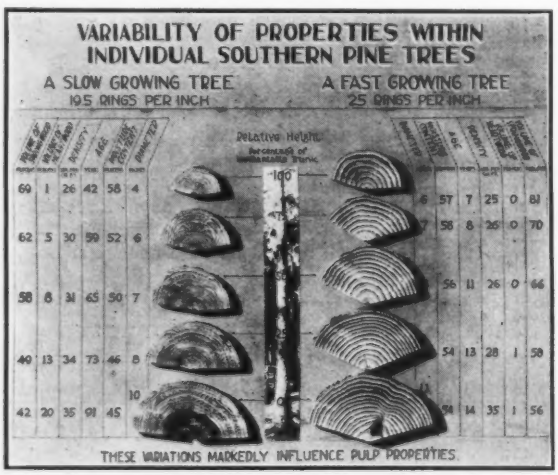
VARIABILITY OF PROPERTIES WITHIN INDIVIDUAL SOUTHERN PINE TREES
A SLOW GROWING TREE
19.5 RINGS PER INCH
A FAST GROWING TREE
25 RINGS PER INCH
Relative Height
Percentage of Maximum Width
100
THESE VARIATIONS MARKEDLY INFLUENCE PULP PROPERTIES.

FIG. 1.
Fast and Slow Growth Pine, Represented by Wide or Narrow Annual Rings.

Various Kinds of Trees

It is a common fallacy, even among those who should know better, that "wood is wood," and that little difference exists between trees. Everybody admits, of course, that there is a difference between hardwoods and softwoods, that some species grow larger than others, that clear lumber is better than knotty lumber, and so on. The general tendency, however, is to assume that all loblolly pine, for example, will exhibit the same properties and be suitable for the same uses. Fortunately or unfortunately, this is not true.

Pine trees now growing on southern farm woodlands and in the country at large constitute a source of raw material from which can be made all the types of paper used in the United States. Their varied possibilities arise from the different ways in which they respond to conditions of site, soil, and spacing,

being evidenced in a good many ways—among which I wish to call special attention to the following:

(a) Fast or slow growth, represented by wide or narrow annual rings (Fig. 1).

(b) Differing amounts of springwood or summerwood in the rings (Fig. 2).

(c) Differing amounts of sapwood or heartwood in the tree (Fig. 3).

Everyone who has cut or handled pine—longleaf, shortleaf, slash, or old-field loblolly, is familiar with these differences, and I think you will easily credit the conclusion that they are effects of individual tree growth rather than strictly species characteristics. It is these that carry over into the character of the pulp produced. Of course, if there is some one species that you favor against all others, you are doubtless backing a winner. But be sure of the type of growth you want in that species and the kind of paper in view, and work toward them. By proper attention to them it is possible to set up in advance the raw materials best suited to the different pulping processes and products.

Except in a most general way, it is not my province to go into the conditions and cultural practices which develop these various characteristics; in the South this is a special field of the Southern Forest Experiment Station, with whom we are conducting some very interesting cooperative studies: I want to take the material as it exists and point out some of its papermaking relationships.

Heretofore the necessity for considering these matters has not been so evident. The reason is that in the South up to the present time practically all the pulp produced has been of the so-called brown-kraft or sulphate type. In this process the wood, reduced to the form of chips, is treated with an alkaline cooking liquor consisting of sodium hydroxide and sodium sulphide. The process gets its name, sulphate, from the fact that in the important step of recovering the cooking chemicals sodium sulphate is employed. Sulphate liquors are alkaline. They dissolve the resins and readily pulp both heartwood and sapwood. Springwood and summerwood behave differently, but with the ordinary run of material a conglomerate pulp can be produced which is entirely suitable for the paper board, the wrapping and similar coarse papers for which southern pines have been so successfully used.

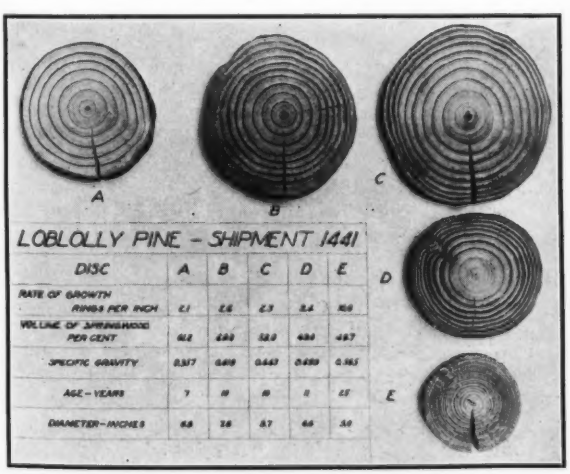

FIG. 2.
Differing Amounts of Springwood and Summerwood in the Rings of Loblolly Pine Pulpwood.

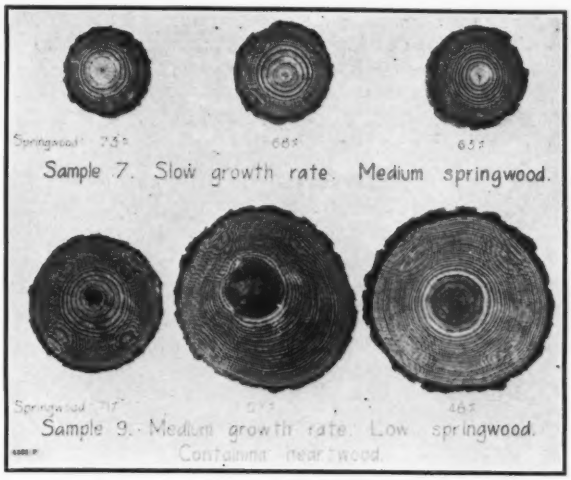

FIG. 3.
Sapwood and Heartwood in Southern Pine Pulpwood.

Trend Toward White Pulp

But the picture is changing. Paper technologists as well as the public are acutely aware of the trend in the South toward bleachable sulphate pulps for book and bond and possibly for newsprint papers. At least four mills are operating or in process of construction with the production of bleachable sulphate pulp in view, and if these developments are to be permanently successful greater care will need to be exercised in growing or selecting the raw material. For one thing, in the interest of smooth or closed sheets, it is desirable that relatively high proportions of thin-walled springwood be employed. Another point is to secure wood of relatively low heart content free from decay and low in resin, as these factors influence color and bleach consumption. In general a wood of different quality is necessary for the bleached pulps than for pulps used in coarser paper grades.

Then there is the exciting possibility of applying the sulphite process to southern pines; this means newsprint and all manner of white paper products—even rayon, which is actually to be the first arrival, at Fernandina, Florida. In the sulphite process a solution of bisulphite of lime in mixture with sulphurous acid is the pulping agent. As ordinarily applied, acid sulphite liquors will not reduce heartwood and are powerless to remove resins. It is true that the unpulped heartwood, which is recovered as so-called screenings, can be converted into boards by additional processing, but it is much more desirable that this low-grade by-product be eliminated if possible through the use of wood containing a minimum amount of heart and low in resin content. In sulphite pulping it is also highly desirable to use material having a relatively high content of springwood. Our experiments have shown that the pulp strength increases proportionately with the amount of springwood present, a fact that is somewhat curious as well as important, as we shall see later. This type of fiber also improves the uniformity and smoothness of the sheet surface, which is of prime importance in printing or writing.

A third pulping method and one which must be thoroughly developed if southern pines are to be used for newsprint is the mechanical process. Here the wood is reduced to pulp by the use of a grindstone. For newsprint, sulphite is the "binder" and groundwood is the "filler." A pulpwood of good color is essential if groundwood pulp of satisfactory properties is to be secured, and again it is desirable that a relatively high quantity of springwood be present for the best results. The proportion of heartwood is of little importance so far as strength properties of pine groundwood pulps are concerned, but since heartwood is usually of a relatively dark color the presence of much of this type of wood is immediately reflected in the color of the pulp. Resin content is also a factor here. A high resin content is bound to result in a "pitchy" groundwood pulp, which will eventually cause operating difficulties on the paper machine.

Springwood and Summer Wood

With the exception of mechanical process, all the methods used to reduce wood to pulp require a chemical action which is largely a solution of the lignin and noncellulosic components of the wood, releasing in purified form the cellulosic fibers. One of the conditions necessary to a uniform chemical action is a uniform raw material. For this reason it is rarely practicable to pulp mixtures of species or even widely varying types of the same species. If enough energy is applied to reduce one type of wood, too much action with the other type present destroys much of its inherent value.

In the case of the southern pines, particularly those of extremely rapid growth, we frequently encounter conditions where the springwood and summerwood are so unlike as to be the equivalent of two different species. An example of this is shown in Fig. 4, where the minute structure of the summerwood and springwood are clearly delineated. The springwood fibers are thin-walled and easily amenable to the action of the pulping agents. They are likewise much more easily processed after the pulp has been prepared from the flat, ribbonlike fibers. The summerwood fibers, on the other hand, are thick-walled and hence stiff and resistant to reduction and processing. Hence arises the strange-seeming fact that a stronger pulp is produced from the slenderer, inherently weaker fibers; they "felt" together better. Fig. 5 shows the difference, at least as far as the sheet surface is concerned. Note the difference between a well-laid sheet and what is called a "brush-heap" conjunction of fibers.

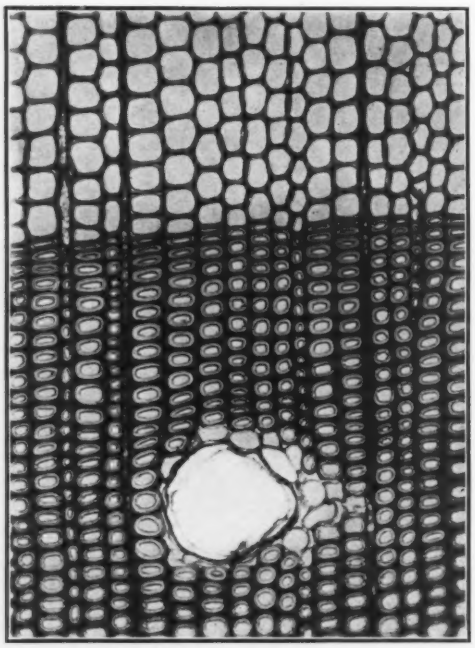

FIG. 4.
Comparison of Springwood and Summerwood in the Southern Pine. (The Thickwalled Cells are the Summerwood).

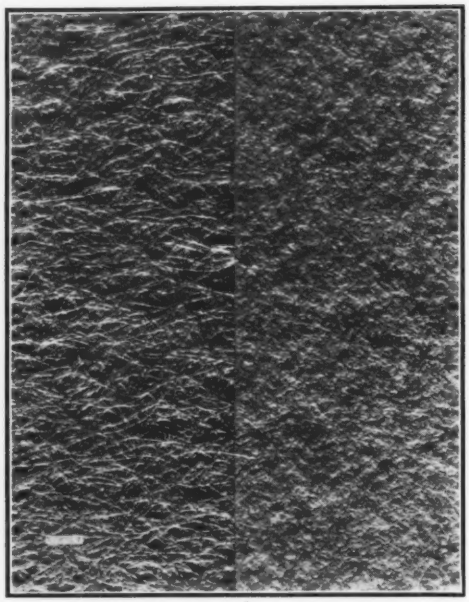

FIG. 5.
Different Types of Pulp Produced from Springwood and Summerwood Fibers. (The Coarse-Fibered Surface Results from Summerwood Fibers.)

Of course both springwood and summerwood fibers are invariably present in southern pine. This disadvantage, however, can be overcome if the quantities of each are relatively constant. Difficulty arises when the proportions vary from batch to batch. Inevitably, under such conditions, a nonuniformity of pulp results unless the mill operator can adjust his operations to the particular batch being cooked. This is by no means a simple matter.

Other Wood Characteristics

There is another characteritic of the rapid growth-wood now coming into the southern stands which requires rather careful consideration. This is the so-called compression wood, which we have recently found has a definite bearing on pulp quality. In Fig. 6 is shown a disc which exhibits the characteristics of compression fiber. The condition apparently arises from some state of strain during growth, as when the tree leans from the vertical. Regardless of what method is used to pulp this material, the resulting pulp and paper is of subquality. We believe this is due to a special kind of twist in the internal structure of the fibers; but, regardless of what is the cause, the fact remains that such material is of low value. Extremely rapid growth almost invariably

results in a certain amount of compression or abnormal fiber, and hence it appears that management methods directed too exclusively to fast growth are not conducive to a yield of high-grade pulpwood.

There are certain other factors having a bearing on the utilization of wood at the pulp mill. Generally speaking, any material less than 4 inches in diameter is uneconomical; first, because of difficulties in removing the bark, and, second, because of the larger number of sticks which must be handled in preparing the chips.

Knots must always be accounted an impairment of the value of pulpwood in proportion to their size and number. The knot fiber is usually dense and hard to penetrate with cooking liquors; no species surpases the southern pines in this respect. The knotty parts of the chips have to be removed from the pulp mass by screening. They are not necessarily a total loss, as it is the custom at many mills to dump in the screenings with the next cook, but knots are not what the pulpmaker primarily intends to buy as raw material. They are, so to speak, the flies in his ointment, which he must strain out. The careful grower, however, will take pains not to breed too many of them. Much, we know, can be accomplished toward their elimination by proper planting, thinning, and pruning of the stand, which with your help, we hope to see widely established in practice.

The weight of the wood is important to the pulp mill, presupposing that fiber quality is that needed for the paticular type of pulp desired. The denser the wood the greater the weight yield of pulp per cord, other things being equal. An exceptionally dense piece, however, is likely to be filled with pitch or to be so resistant to the action of chemicals that the final yield of pulp and the quality of the fibers will be less than would be obtained from a somewhat lighter material.

No Risk as Far as Mill is Concerned

So far as the mill is concerned, no risk is involved in buying by the cord, as the net weight of actual wood in the average cord of pine of a day's run holds fairly steady. From the point of view of the individual grower, however, the case is different. Purchase by the cord offers no premium on selection or on the production of dense wood by careful growing methods. On this basis, an exceptionally good lot of wood might bring no more than 50 to 75 per cent of its inherent value, while light-weight stock brings more than it is actually worth as a source of pulp.

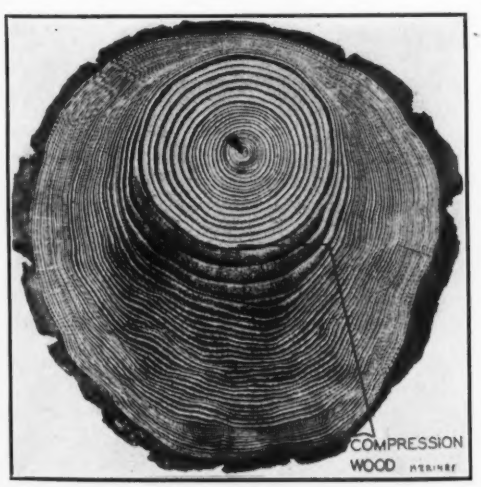

FIG. 6.
Example of Compression Fiber in Pulpwood

The alternative system of purchase by weight on delivery has been recently inaugurated at one or two mills. Such a system is worthy of the careful consideration of owners in any steps they may take toward organized growing and marketing of pulpwood. It would insure every load of wood bringing its proper return at the prevailing scale of prices.

In view of the whole pulpwood-growth picture, which I have sketched only briefly, and in the barest outline, one central impression emerges, and that is that if the woodlot owner is to make the most of his timber farming he will attempt to supply the type of material which the pulp mills can best utilize. In so doing he can demand a premium for his product. To some extent he can actually specialize his growing practice, and in any event he can hold back material which is not well adapted to any pulping process and can divert it to one of a half-dozen other uses.

Generally speaking, the best pulpwood will be relatively uniform in growth, which means that the thinning of the wood lots will need to be so handled that extremes of growth rate are not encouraged in any given stand. Despite weight requirements, a relatively high ratio of springwood to summerwood is desirable and can also be regulated by the thinning practice. If the wood contains much heart, it is obviously not suited for sulphite pulping and can be best disposed of to mills operating the sulphate or other alkaline process. The same holds true for groundwood, except that if the heartwood is not dark in color it can be utilized in this process.

A Word as to Hardwoods

Before concluding these comments perhaps a word as to hardwoods should be spoken. The recent Forest Survey figures show approximately half the existing stands to be of this type. The Forest Products Laboratory has studied these species as pulpwoods, evaluating their grinding possibilities, their use in sulphite and sulphate pulps, in the production of newsprint, book, bond and many other grades of papers. A few years ago we even developed a new semichemical pulping process now used successfully in the pulping of gum and chestnut for fiberboards and other papers. With conditions as they are the economics of utilizing southern hardwoods for pulp are somewhat hazy, but a limited use is already an accomplished fact, and as our efforts with the pines approach a successful conclusion more intensive effort is being directed toward the hardwood species. We feel confident that they, too, will find a prominent place in the general wealth of pulp resources with which the South is endowed.

For his own interest and the larger welfare of the South, the farmer should be made aware of the possibilities of pulpwood as one part of his timber program. With the industry heading South, competition in the purchasing of pulpwood will increase. Other things being equal the price should follow a rising trend, and in all fairness the mills can afford to pay the higher price for pulpwood if the quality of the material which they receive is such that they may realize higher yield and better pulp quality.

Review Of The Paper Industry Literature

Abstracts Compiled By the Abstracts and Bibliography Committee of the Technical Association of the Pulp and Paper Industry, A. Papineau-Couture, John F. Ohlson and Clarence J. West, Chairman of the Committee.

Copies of United States Patents can be obtained from the United States Patent Office, Washington, D. C. for 10 cents each. Send currency, not stamps.

Analysis and Testing

Determination of Mechanical Wood Pulp in Paper. S. S. Aiyar and P. S. Krishnan. Analyst 62: 713-718 (1937).—Halse's method is time-consuming and fails with made-up paper since loading and sizing materials cannot be eliminated completely. Spence and Krauss' method (*Paper* 20, No. 11 (1917)), with minor modifications, gives results which agree within 3 per cent and, judged by analyses of standard samples, appears to be accurate. In border-line cases the results are checked by Dunnicliff and Suri's improvement of the phloroglucinol method.—A.P.-C.

Permeability of Impregnated Papers. E. E. Halls. Ind. Chem. 13: 382-385 (1937).—It is considered that the rate of water penetration through paper has no general direct relation to the thickness of the paper, and curves are given to support this statement. Instead the rate of penetration is largely governed by the spaces (pores or interstices between or in the fibers, etc.) available for transmission, and the more such spaces are reduced (e.g., by impregnation) the less will be the rate of water penetration. —A.P.-C.

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Optical Specification of Light-Scattering Materials. Deane B. Judd. Paper Trade J. 106, no. 1: 39-46 (Jan. 6, 1938).—In 1931 Kubelka and Munk worked out the relationship between reflectance and thickness of material for thin, homogeneous layers illuminated diffusely. In the equation expressing this relationship, the hypothetical ideal material is defined by two constants, reflectivity and coefficient of scatter. Data are presented showing that the simple Kubelka-Munk theory applies to reflectance measurements of vitreous enamel, cold-water paint, various types of paper (newsprint, rag writing, sulphite writing, book) and dental silicate cements, made on the usual reflectometers in the usual way.—A.P.-C.

Instrumentation Studies. XX. A Study of Photoelectric Instruments for the Measurement of Color: Reflectance and Transmittance. 1. General Discussion of Color and Measurements. Staff of the Institute of Paper Chemistry. Paper Trade J. 105, no. 18: 135-141; no. 19: 27-39 (Oct. 28, Nov. 4, 1937).—A critical laboratory investigation of existing photoelectric instruments, delimiting their fields of valid application in the pulp and paper industry.—A.P.-C.

The Fundamentals of Glassine Transparency. I. Psychological. Dan. B. Wicker. Tech. Assoc. Papers 20: 390-399 (June, 1937); Paper Trade J. 105, no. 17: 31-40 (Oct. 21, 1937).—From a study of the psychological aspects of glassine transparency it is concluded that the capacity for transmitting rays of light without scattering is the single property of a sheet which dominates all others in determining transparency.—A.P.-C.

Instrumentation Studies. XXI. A Study of Photoelectric Instruments for the Measurement of Color: Reflectance and Transmittance. 2. The General Radio Color Comparator, Type 725-A. Staff of the Institute of Paper Chemistry. Paper Trade J. 105, no. 25: 46-50 (Dec. 16, 1937).—The instrument and its operation are briefly described; its spectral, geometrical and photometrical features are discussed, together with its use for the measurement of "brightness" and opacity and the matching of colors.—A.P.-C.

Instrumentation Studies. XXII. A Study of Photoelectric Instruments for the Measurement of Color: Reflectance and Transmittance. 3. The Lange Photoelectric Reflection Meter. Staff of the Institute of Paper Chemistry. Paper Trade J. 105, no. 27: 42-46 (Dec. 03, 1937).—A description of the instrument and its method of operation, with a discussion of its spectral, geometrical and photometrical features.—A.P.-C.

Instrumentation Studies. XXIII. The Measurement of Elasticity and Compressibility By the Bekk Hardness Tester. Staff of the Institute of Paper Chemistry. Paper Trade J. 106, no. 2: 42-47 (Jan. 13, 1938).—Many, and perhaps all, normal printing papers do not have sufficient structural strength to withstand the force of impact received by the pendulum bob of the Bekk tester and are crushed to a dense structure thereby transferring an appreciable part of the impact to the underlying steel plate; this results in obscuring the elasticity of the paper by the elasticity of the steel plate, particularly with thin papers. No accurate correlation could be found between elasticity and compressibility of paper, as determined by this instrument. Elasticity as measured by the percentage rebound of the pendulum is not proportional to compressibility under dynamic load and cannot be used as a measure of that property. Preliminary tests on the compressibility of paper under static load showed that the differences in compressibility were too small to be of significance in different papers of the same grade, and that the study of this property required a more sensitive micrometer than that normally used for caliper measurements. Suggestions are offered as possibili-

ties for increasing the sensitivity of the test of compressibility under dynamic load.—A.P.-C.

Instrumentation Studies. XXIV. Variations in Physical Properties of Papers Due to Their Non-uniformities. Staff of the Institute of Paper Chemistry. Paper Trade J. 106, no. 3: 42-44 (Jan. 20, 1938).—A large number of data obtained with the object of obtaining representative data on the magnitude of variation for several properties in typical papers of standard grades and basis weights are presented and discussed. In the main, deviations found are the result of lack of uniformity in properties rather than of inaccuracies or lack of precision in the test methods. Some properties are more uniform than others, and some of the test procedures function to average the existing non-uniformities.—A.P.-C.

Instrumentation Studies. XXV. The Williams Smoothness Tester. Staff of the Institute of Paper Chemistry. Paper Trade J. 106, no. 4: 38-42 (Jan. 27, 1938).—A description of the instrument and its operation together with a discussion of the various features and factors that affect the results. Comparative tests made on the Williams and Bekk smoothness testers showed a correlation of the results, when considering the fundamental differences in the conditions of test in the two instruments, that was better than might have been expected.—A.P.-C.

Instrumentation Studies. XXVI. Penetration of Papers By Liquids and Solutions. 2. The Barss, Knobel, and Young News Penetration Tester. Staff of the Institute of Paper Chemistry. Paper Trade J. 105, no. 26: 35-42 (Dec. 23, 1937).—The instrument and its operation are described. Observations made with the instrument to determine the extent to which it fulfills the claims made for it by the manufacturer together with the results of theoretical considerations of the fundamental nature of the instrument show that the instrumental readings are definitely dependent on the color and opacity of the paper. This fact constitutes a serious objection to the use of this instrument.—A.P.-C.

Capillary Systems. XIX/5. The Permeability of Channeled, Framework and Network Capillary Systems for Gases. E. Manegold. Kolloid-Z. 81, no 3: 269-294 (Dec., 1937); B. I. P. C. 8:212.—A review of the literature and experiments include the determination of a "specific permeability" for such systems as paper, cellulose, cellulose esters, various woods, silica gels, rocks, building and insulating materials, textiles, etc. This value is independent of the nature and temperature of the liquid or gas except that gases pass more readily than liquids when the adsorbed liquid layer constitutes an appreciable portion of the capillary width, or when the solid is swollen by the liquid. The specific permeability is a very characteristic and sensitive value for representation of the inner structure of a capillary system. Measurements with gases prove much more convenient than measurement of liquid permeability.—C.J.W.

Specialties

The Manufacture of Matrixs for Embossing Purposes. Kartonnagen- Papierwaren-Ztg. 41, no. 44: 465-6; no. 45: 474, 476 (Oct. 29, Nov. 5, 1937).—The building up of a matrix paper is described.—C.J.W.

The Manufacture of paper Serpentines and Confetti. Kartonnagen- Papierwaren-Ztg. 41, no 49: 520-1 (Dec. 3, 1937).—The manufacture is briefly described. Cheap paper with a large percentage of groundwood is used for the serpentines, while any kind of waste paper is suitable for punching the confetti.—C.J.W.

The Technique of Embossing Initials. Kartonnagen- Papierwaren-Ztg. 41, no. 46: 486, 488 (Nov. 12, 1937).—A description of the technique is given, which is applied to letter paper, and for similar purposes.—C.J.W.

New Expedients for Lacquering and Impregnating Paper. Papier-Ztg. 62, no. 89: 1517-8 (Nov. 6, 1937).—Reference is made to certain polymerization products, cellulose esters and ethers, and mixed cellulose esters.—C.J.W.

New TAPPI Members

The Executive Committee of the Technical Association of the Pulp and Paper Industry has elected the following to membership:

Alfred N. Ball, chief engineer, E. B. Eddy Company, Ltd., Hull, P. Q., is a 1914 graduate of Queens University and was formerly with the Restigouche Company, Ltd., Campbellton, N. B., the St. Lawrence Paper Mills, Three Rivers, P. Q. and the Canadian International Paper Company, Temiskaming, P. Q.

Francis A. Blakelin, sales engineer, Simonds Worden White, Dayton, Ohio, was formerly with the Mills Machine Company, J. W. Bolton & Sons and the Emerson Manufacturing Company of Lawrence, Mass.

Edward F. Boyle, chief chemist, Bloomer Brothers Paper Company, Newark, N. Y., is a 1937 graduate of the New York State College of Forestry.

Otto Brauns, assistant manager, Paper Mill Division, Vargon, A/B, Sweden, is a 1928 graduate of the Royal Institute of Technology, Stockholm, Sweden, and was formerly with the Algonquin Paper Company, Ogdensburg, N. Y., McGill University and the Abitibi Power and Paper Company, Iroquois Falls, Ont.

Chester H. Child, chief chemist, Munroe Paper Corporation, Lawrence, Mass., was formerly with the Continental Paper and Bag Mills, Rumford, Me., the Nekoosa Edwards Paper Company, Nekoosa, Wis., and the Southern Kraft Corporation, Marinetti, Wis.

Harry Clegg, wood pulp agent, Altrincham, Cheshire, England.

H. P. Dixon, Jr., student, Institute of Paper Chemistry, Appleton, Wis., is a 1935 graduate of Iowa State College and was employed by the Mosinee Paper Mills, Mosinee, Wis.

Thomas E. Dobbins, student, New York State College of Forestry, Syracuse, N. Y., was employed by Dill & Collins, Inc., Philadelphia, Pa.

Carroll J. Enemark, coating superintendent, the Marvellum Company, Holyoke, Mass., is a 1922

graduate of the Pratt Institute and attended Brown University. He was formerly with the Hampden Glazed Paper and Card Company, Holyoke, Mass.

Harald A. Erikson, vice president, A/B Svenska Fläktfabriken, Stockholm, Sweden, is a graduate of the Royal Institute of Technology, Stockholm.

Alex Euston, student, Institute of Paper Chemistry, Appleton, Wis., is a 1925 graduate of Princeton and was employed by the Euston Process Company, Scranton, Pa., and the Cherry River Paper Company, Richwood, W. Va.

John C. W. Evans, control department assistant, St. Anne Paper Company, Beaupre, P. Q., is a 1935 graduate of Mt. Allison University.

Fred D. Floyd, chief chemist, Louisiana Mill, Southern Kraft Corporation, Bastrop, La.

Harold B. Freeman, sales engineer, American Cyanamid and Chemical Company, New York, N. Y., is a 1927 graduate of Iowa State College and was formerly chemist for the U. S. Gypsum Company, Oakfield, N. Y.

Harold T. Fretz, chief chemist, Rayonier, Inc., Port Angeles, Wash., has been transferred from associate to active membership.

L. L. Griffiths, sales engineer, Calco Chemical Company, Kalamazoo, Mich., has been transferred from associate to active membership.

Raymond K. Guinard, chemist, Castenea Paper Company, Johnsonburg, Pa., is a 1937 graduate of Pennsylvania State College.

Walter R. Hicks, Jr., salesman, Daniel M. Hicks, Inc., New York, N. Y., is a 1936 graduate of Fordham University.

Howard D. Hyman, production manager, J. R. Booth Ltd., is a 1925 graduate of McGill University and was formerly with the Spruce Falls Pulp and Paper Company, Kapuskasing, Ont., Canadian International Paper Company, Temiskaming, P. Q., and the Mattagami Pulp and Paper Company, Montreal, P. Q.

Edward W. Keith, assistant soda mill superintendent, Penobscot Chemical Fibre Company, Great Works, Me., was formerly with the Great Northern Paper Company, Millinocket, Me.

H. King, assistant general manager, Wenchi Paper Mills, Ltd., Shanghai, China, is a 1922 graduate of the University of Maine and was with the Great Northern Paper Company, Millinocket, Me. and the Jessup & Moore Paper Company, Wilmington, Del.

Ralph W. Kumler, sales manager, Bennett, Inc., Wilmington, Del., has been transferred from associate to active membership.

W. P. Lawrence, chemical engineer, Research Department, Champion Paper and Fibre Company, Canton, N. C., has been transferred from associate to active membership.

Frederich H. Lovenberg, chemical sales, George Mann Company, Providence, R. I., was formerly with the Mathieson Alkali Works, Providence, R. I.

Howard S. McQuaid, chemical engineer, E. I. du Pont de Nemours & Co., Wilmington, Del., is a 1917 graduate of the Massachusetts Institute of Technology.

William C. Marshall, owner, Case & Risley Press Paper Company, Oneco, Conn.

Karl C. Melenbacker, chief chemist, Wabash, Ind. Division, Container Corporation of America, is a 1934 graduate of Iowa State College.

Sidney Musher, president, Musher Foundation, Inc., New York, N. Y., is a 1925 graduate of Johns Hopkins University.

Umberto Pomilio, director, S. A. Cellulosa Cloro Soda, Naples, Italy, is a graduate of Naples, Zurich, Charlottenburg and Manchester Universities.

Edward N. Poor, technical control department, W. C. Hamilton & Sons, Miquon, Pa., is a 1932 graduate of the Massachusetts Institute of Technology.

Richard B. S. Sewell, chemist, British Columbia Pulp and Paper Company, Port Alice, B. C., is a 1937 graduate of the University of British Columbia.

Florian A. Strovink, technical representative, Bennett, Inc., Cambridge, Mass., attended the Lowell Institute, Cambridge, Mass.

Benjamin E. Teale, mill manager, Ancram Paper Mills, Ancram, N. Y., is a 1904 graduate of the Pratt Institute, Brooklyn, N. Y., and was formerly with the Smith Paper Company, Lee, Mass., and the British-American Tobacco Company Ltd., Richmond, Va.

Vernon L. Tipka, research engineer, Hawley Pulp and Paper Company, Oregon City, Ore., attended the Oregon Institute of Technology and was formerly with the Crown Williamette Paper Company, Camas, Wash., and the Hercules Powder Company, Parlin, N. J.

Llewellyn B. Tucker, chemist, Crane & Co., Walton, Mass., has been transferred from associate to active membership.

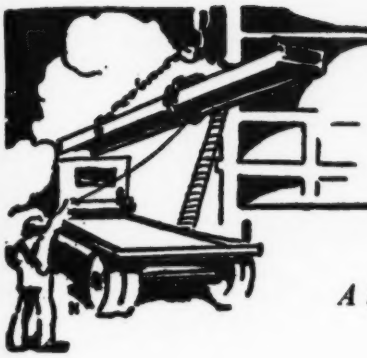
Rudolph Weiler, chemist, Southern Kraft Corporation, Georgetown, S. C., is a 1935 graduate of Darmstadt Institute of Technology (Germany) and was formerly with Dill & Collins, Inc., Philadelphia, Pa., Bird Machine Company, South Walpole, Mass., and the Hermes Paper Company and Rhinish Fiber Board Company of Germany.

Anthony J. Wirpsa, chemist, Racquette River Paper Company, Potsdam, N. Y., is a 1937 graduate of the New York State College of Forestry.

Kalamazoo TAPPI Discusses Drying

The Kalamazoo Valley Section of the Technical Association of the Pulp and Paper Industry met at the Gull Lake Country Club, Thursday, June 2. In the afternoon a golf tournament was held. Prizes donated by the Hercules Powder Company were won by W. H. Randall, Hod Heath, Merle Wilkins and Fred Elliott.

L. G. Janett of the J. O. Ross Engineering Corporation presented a paper on "Tons of Air for Drying Paper," which will be published soon in the PAPER TRADE JOURNAL. Among those present were: Merle R. Wilkins, H. O. Ware, D. R. Erickson, H. B. Johnson, Paul Easton, Charles E. Sanford, R. H. Hurst, O. D. Blessing, L. H. LaLiberte, Al. Perlick, Wm. Astle, G. C. Schmid, M. S. Fogerty, Archie Webb, A. E. Hays, C. E. Hellinberg, Elbert G. Milham, John L. Russell, R. H. Olson, W. H. Randall, C. F. Somerville, Jr., P. F. Neumann, Frederick Elliott, O. W. Callahan, L. Larson, Paul de Guehery, Karl Milenbacker, Robert W. Long, Harry C. Pearson, James R. Verdon, H. G. Potts, Harry C. Bradford, Hod Heath, Marshall Rutz, W. F. Hathaway, F. K. Shankweiler, H. F. Heller, Robert Buss, Frank Libby, Arthur Weinland, V. Heinmuller, R. W. Holden, Leo. A. Willoughby, A. B. Milham, L. E. Fitzgerald, R. W. Van Kirk, Baldy Smith, Joe Dennedy, John E. Bauman.



CONSTRUCTION NEWS

A Summary of Vital Facts Regarding Construction, Financing and Operation of Pulp and Paper Mills

General Construction News

Niagara Falls, N. Y.—The Electric City Paper Mills, Inc., Adams street, manufacturer of wrapping, lining and other kindred paper stocks, has awarded contract to August Feine & Sons Company, 140 Terrace street, Buffalo, N. Y., for structural steel framing for rebuilding of portion of mill, recently destroyed by fire. New structure will be two-story, similar to that damaged by the fire, and is estimated to cost close to $35,000, with equipment. It will be used for tar paper and allied divisions of production.

New York, N. Y.—The Wallace Paper Box Corporation, 609 West 51st street, manufacturer of stiff paper boxes and containers, has arranged for lease of an additional floor in building now occupied, address noted, totaling about 16,500 square feet of additional floor space, and will occupy for expansion.

Boston, Mass.—The General Waxed Paper Corporation, 92 Prospect street, Thompsonville, Conn., manufacturer of waxed and other processed paper stocks, has taken out a charter under Massachusetts laws, with office at Boston, to operate in that State. The company is capitalized at $20,000. Arthur W. Moore is president and treasurer.

Georgetown, S. C.—The Southern Kraft Corporation, 220 East 42nd street, New York, N. Y., has awarded contract to the Rust Engineering Company, Clark Building, Pittsburgh, Pa., for construction of a new reinforced-concrete stack at power house at mill at Georgetown, with octagonal-shaped base, 40 feet at widest points, tapering to 16 feet at top, which will be 256 feet above ground level. The new unit will replace a group of five present stacks at plant. The base of the structure will be supported on 199 piles, each 35 feet in length, and contract for this foundation has been let to the William Thomson Contracting Company, Georgetown. Work will be placed under way at once. Company is a subsidiary of International Paper Company, first noted address.

North Bergen, N. J.—The Rossotti Lithographing Company, Inc., 121 Varick street, New York, N. Y., manufacturer of paper products, has approved plans for a new converting plant at the North Jersey Industrial Terminal, North Bergen, where a tract of 2 acres of land has been secured. New plant will be one-story, totaling about 70,000 square feet of floor space, and is reported to cost over $100,000, with equipment. Structure will be erected by the Bonanno Construction Company, 1827 Bergen Turnpike, North Bergen, and work is scheduled to begin at once. An air-conditioning system will be installed. Company will remove present plant to new location and provide increased production facilities.

Menominee, Mich.—The Hoskin Paper Company, manufacturer of kraft and other wrapping papers, has plans nearing completion for new filter plant at mill, and is said to be arranging to place orders for equipment at early date. No estimate of cost has been announced. L. A. DeGuere, Mead-Witter Building, Wisconsin Rapids, Wis., is consulting engineer.

Brooklyn, N. Y.—Russo Brothers Paper and Rag Stock, Inc., 39 Frost street, dealer in waste paper stocks, etc., has concluded arrangements for the purchase of the four-story and basement industrial building on local site at 47-51 South Fifth street, heretofore held by Standard Brands, Inc., New York. Structure will be improved and arranged for the storage and distribution of paper stocks, providing large increased capacity for purchasing company.

Lufkin, Tex.—The Southland Paper Mills, Inc., Lufkin, care of Ernest L. Kurth, president, Angelina Lumber Company, Lufkin, and an official of first noted company, has plans rapidly maturing for proposed new newsprint mill, recently referred to in these columns, and proposes to begin work on project in next 30 to 60 days. Site has been selected at Lufkin for mill, which will consist of a number of one and multi-story units for pulp and finished paper division, equipped for an initial capacity of about 50,000 tons of newsprint per annum. Company has arranged for pulpwood supply from pine timberlands within a radius of about 50 miles of Lufkin, where over 2,700,000 acres of such properties are available. Entire output of plant for a number of years will be used by Southern newspapers, comprising the Southern Newspaper Publishers' Association; James G. Stahlman, publisher of the *Nashville Banner*, Nashville, Tenn., is head of a committee of the Association in charge of newsprint manufacture, and is actively interested in Lufkin project. New mill is estimated to cost about $5,000,000, and totaling financing in amount of $7,000,000 is being consummated. Perkins-Goodwin Company, 30 Rockefeller Plaza, New York, N. Y., is said to be interested in project and will be active in the management of the new mill.

Natick, Mass.—The Natick Box and Board Company, North Main street, manufacturer of folding paper boxes and containers, has approved plans for new two-story and basement addition to plant, 60 x 100 feet, to be used primarily for storage and distributing service. General erection contract has been let to Loren & Marsh, 38 Norfolk street, Arlington, Mass., and superstructure will be placed under way at once. Structure is estimated to cost close to $40,000, with equipment.

New York, N. Y.—The Ferdinand Buedingen Company, Inc., 55 West 42nd street, manufacturer of paper boxes and containers, has leased space in building at 51 East 42nd street, and will occupy for local plant and headquarters.

Thorold, Ont.—The Ontario Paper Company, Ltd., Thorold, manufacturer of newsprint, has completed plans for a new hydroelectric generating station on the Black River, at site known as Jackfish, Ont., and will begin work on project at once. A contract for general construction has been awarded to A. W. Robinson, Ltd., 57 Bloor street, West, Toronto, Ont. New station is estimated to cost over $850,000, including a transmission line about 50 miles long, to company's pulpwood properties in the Black River area.

Toronto, Ont.—Fire recently damaged a portion of local mill of the Hinde & Dauch Paper Company of Canada, Ltd., 43 Hanna street. No official estimate of loss has been announced, but is reported as slight.

Ocean Falls, S. C.—The Pacific Mills, Ltd., foot of Campbell avenue, Vancouver, B. C., manufacturer of kraft, tissue, waxed and other paper stocks, has adopted a curtailed production schedule at mills at Ocean Falls, and will operate on a 14-day month basis until further notice.

WAUSAU SUFFER LARGE LOSS

(Continued from page 13)

petition from residents of the town of Eau Pleine, in Portage County, favoring the construction.

The proposal, as explained by Tom Utegaard, engineer for the Consolidated company, is to create a lake which would impound flood waters of the Wisconsin and Little Eau Pleine Rivers, covering approximately 40,000 acres of agricultural land now menaced by annual floods.

Workers at Peavey Products Plant Strike

What is believed to be the first strike in the paper industry in Wisconsin in years was in progress last week at the Peavey Paper Products Company, Ladysmith, Wis. Violence broke out in picket lines when approximately 40 employees attempted to go to work.

Lynn Peavey, divisional sales manager, said the strike was called by members of the AFL papermakers' union. The issue was a demand of the workers for collective bargaining rights. He also said William Peavey, president of the company, had asked that the employees hold an election under labor board supervision and he would abide by the result. The mill was in partial operation by workers able to break through the picket lines. A few persons were injured in fist fights, and an attempt was made to overturn an automobile.

First Shipments of Pulp and Pulp Wood

Marathon Paper Mills Company's first cargo of sulphite pulp of the season arrived at the docks at Ashland, Wis., aboard the steamer Lawrendoc from Montreal, Canada, Saturday of last week. The shipment consisted of 1,200 tons.

The first raft of pulp wood for the Consolidated Water Power and Paper Company is due at Ashland June 10. It is being brought across Lake Superior from the Pic River region of Canada by the tug Butterfield of the Newaygo Tug Line.

Manager Speaks on Consolidated Co.'s Program

C. E. Jackson, mill manager of the Consolidated Water Power and Paper Company, spoke at a meeting of the Rotary club at Wisconsin Rapids, Wis., on the improvement program completed recently involving expenditures of approximately $2,000,000. He said that nine years ago the company started the change from newsprint to book paper, but that most of the changes have been made in the last year, so that three machines at the Wisconsin Rapids and Biron, Wis. divisions are now running on process coated papers. All of the machines of the two divisions are running at 85 to 90 per cent of capacity. The Rotarians were afterwards escorted through the main mill to view the new equipment and see the coating process in action on the machines. Each was presented with a tablet containing two different grades of book paper, with a Rotary emblem printed on the cover.

Kimberly-Clark Corporation also conducted another observation tour of its new Lakeview mill at Neenah, Wis., last week, under the guidance of S. F. Shattuck, vice-president, and William Kellett, mill manager. The guests included 115 Appleton, Wis. business men, who were served a luncheon in the mill cafeteria. They were escorted through the various paper and cellucotton divisions in groups of ten, with a guide for each.

Will of the Late L. L. Alsted Filed

The will of Lewis L. Alsted, president of the Combined Locks Paper Company, Appleton, Wis., who died in Chicago May 21, has been filed with Judge F. V. Heinemann in the probate court of Outagamie County at Appleton. It says the estate contains personal property in excess of $25,000 and real estate valued at $10,000. The widow is to receive the real estate and personal effects, and 90 per cent of the income of the estate. The remaining 10 per cent goes to an only daughter, Mary, a student at Northwestern University, Evanston, Ill.

Homestead Valves

A new Homestead valve reference book No. 38, has just been issued by the Homestead Valve Manufacturing Company, Inc., Coraopolis, Pa. The book describes the company's complete line of boiler blow-off valves, several new lines of lift-plug valves and a new line of Homestead semi-steel oil, water, gas valves. Suggested uses for valves to meet the requirements in all industries are given. The company states prices are generally lower.

Entertain Carter, Rice Staff

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., June 6, 1938.—Twenty-two members of the staff of Carter, Rice & Co., Corporation, including both printing and wrapping paper representatives, were guests of Frank C. Herrick of the Boston office of the Columbian Rope Company at a dinner and a very instructive sales discussion covering their products at the Boston City Club May 27. This meeting ended a series of four, at each of which Mr. Herrick discussed specific items.

Imports of Paper and Paper Stock

Giving Manifests of New York, Boston, Philadelphia and Other Ports, of Newsprint, Wrapping, Writing, Coated, Blotting, Tissue, Strawboard, Wallboard, Cigarette Papers, Sulphite, Kraft and Ground Wood Pulp.

NEW YORK IMPORTS

WEEK ENDING JUNE 4, 1938

SUMMARY

Cigarette paper .....1,004 cs., 1 roll
Paper hangings .....4 bls.
Newsprint .....15,284 rolls
Printing paper .....82 rolls, 43 cs.
Bristol Boards .....2 cs.
Drawing paper .....1 cs.
Filter paper .....20 cs.
Filter mass .....170 bls.
Filter compound .....5 bls.
Surface coated paper .....4 cs.
Surface baryta coated paper .....189 crates, 10 cs.
Metal covered paper .....43 cs.
Photo paper .....3 cs.
Basic paper .....1 cs.
Decalcomania paper .....24 cs.
Decalcomanias .....22 cs.
Transfer paper .....31 cs.
Colored paper .....2 cs.
Tissue paper .....23 bbls., 4 cs.
Marble paper .....1 cs.
Gummed paper .....5 cs.
Writing paper .....13 cs.
Miscellaneous paper .....90 rolls, 55 cs.

CIGARETTE PAPER

Jay Madden Corp., *Mormactide,* Helsingfors, 139 cs.
Champagne Paper Corp., *Normandie,* Havre, 824 cs.
De Manduit Paper Corp., *Normandie,* Havre, 3 cs.
Braunstein Freres, Inc., *Normandie,* Havre, 38 cs., 1 roll.

PAPER HANGINGS

W. H. S. Lloyd & Co., *American Farmer,* London, 4 bls.

NEWSPRINT

N. Y. Evening Journal, *Rydboholm,* Kotka, 323 rolls.
Lunham & Reeve, Inc., *Rydboholm,* Kotka, 282 rolls.
Jay Madden Corp. *Rydboholm,* Kotka, 469 rolls.
Jay Madden Corp., *Berlin,* Bremen, 321 rolls.
News Syndicate Co., *Louisianan,* Baie Comeau, 5,621 rolls.
——, *Bergensfjord,* Oslo, 20 rolls.
International Paper Sales Co., *Cornerbrook,* Dalhousie, 2,535 rolls.
H. G. Craig Co., *G.D.D.,* Donnacona, 290 rolls.
H. G. Craig Co., *Newscarrier,* Donnacona, 290 rolls.
Lunham & Reeve, *Mormactide,* Kotka, 173 rolls.
Jay Madden Corp., *Mormactide,* Kotka, 360 rolls.
N. Y. Evening Journal, *Markland,* Liverpool, N.S., 190 rolls.
N. Y. Tribune, Inc., *Markland,* Liverpool, N.S., 1,434 rolls.
World Telegram, *Markland,* Liverpool, N.S., 574 rolls.
Brooklyn Daily Eagle, *Markland,* Liverpool, N.S., 752 rolls.
N. Y. Post, *Markland,* Liverpool, N.S., 820 rolls.
Jay Madden Corp., *Scanpenn,* Kotka, 474 rolls.
Jay Madden Corp. *Hansa,* Hamburg, 267 rolls.
Perkins Goodwin & Co., *Hansa,* Hamburg, 89 rolls.

PRINTING PAPER

Dingelstedt & Co., Berlin, Bremen, 82 rolls, 17 cs.
Dingelstedt & Co., *Europa,* Bremen, 26 cs.

BRISTOL BOARDS

——, *American Farmer,* London, 2 cs.

DRAWING PAPER

Japan Paper Co., *American Farmer,* London, 1 cs.

FILTER PAPER

H. Reeve Angel & Co. Inc., *American Farmer,* London, 20 cs.

FILTER MASS

A. W. Fenton Co., *Berlin,* Bremen, 170 bls.

FILTER COMPOUND

A. W. Fenton Co., *Hansa,* Hamburg, 5 bls.

SURFACE COATED PAPER

Gevaert Co., of America, *H. Jaspar,* Antwerp, 1 cs.
C. Happel, *Hansa,* Hamburg, 3 cs.

SURFACE BARYTA COATED PAPER

Globe Shipping Co., *Berlin,* Bremen, 87 crates.
Globe Shipping Co., *Hansa,* Hamburg, 102 crates.
L. A. Consmiller, *Europa,* Bremen, 10 cs.

METAL COVERED PAPER

K. Pauli Co., *Berlin,* Bremen, 13 cs.
K. Pauli Co., *Hansa,* Hamburg, 30 cs.

PHOTO PAPER

J. J. Gavin Co., *Aquitania,* Southampton, 3 cs. (unsensitized)

BASIC PAPER

Dingelstedt & Co., *Konigstein,* Antwerp, 1 cs.

DECALCOMANIA PAPER

B. F. Drakenfeld & Co., *Carinthia,* Liverpool, 19 cs. (duplex), 5 cs. (simplex)

DECALCOMANIAS

Sellers Transportation Co., *Hansa,* Hamburg, 6 cs.
Sellers Transportation Co., *Europa,* Bremen, 12 cs.
——, *Europa,* Bremen, 4 cs.

TRANSFER PAPER

Fuchs & Lang Manfg. Co., *Hansa,* Hamburg, 14 cs.
Atlantic F'd'g Co., *Hansa,* Hamburg, 17 cs.

COLORED PAPER

J. W. Hampton, Jr. & Co., *Konigstein,* Antwerp, 2 cs.

TISSUE PAPER

W. J. Byrnes, *American Farmer,* London, 4 cs.
Jay Madden Corp., *Scanpenn,* Helsingfors, 23 bbls.

MARBLE PAPER

Tamm & Co., *Konigstein,* Antwerp, 1 cs.

GUMMED PAPER

Heemsoth Kerner Corp., *Europa,* Bremen, 5 cs.

WRITING PAPER

H. W. Robinson Co., *Hansa,* Hamburg, 13 cs.

MISCELLANEOUS PAPER

S. Bienfang, *Rotterdam,* Rotterdam, 13 cs.
International F'd'g Co., *Rotterdam,* Rotterdam, 2 cs.
Burroughs Wellcome & Co., Inc., *American Farmer,* London, 7 cs.
Japan Paper Co., *G. Maersk,* Kobe, 21 cs.
——, *Konigstein,* Antwerp, 78 rolls.
——, *Normandie,* Havre, 12 rolls.
The Morilla Co., Inc., *Normandie,* Havre, 6 cs.
National City Bank, *Normandie,* Havre, 6 cs.

RAGS, BAGGINGS, ETC.

Darmstadt Scott & Courtney, *Black Gull,* Rotterdam, 40 bls. oil bag scrap.
J. Cohen & Son Co. Inc., *Carinthia,* Liverpool, 14 bls. paper stock, 12 bls. rags.
Bank of N. Y. Trust Co., *Lucia C.,* Trieste, 112 bls. rags.
W. Steck & Co., *Pan American,* Buenos Ayres, 60 bls. rags.

GLUE STOCK

——, *Fernhill,* Genoa, 41 bls.

WOOD PULP

Pulp Sales Corp., *Southlure,* Wiborg, 3,556 bls. sulphate, 710 tons.
———, *Berlin,* Bremen, 1,100 bls. wood pulp.
Chase National Bank, *Bergensfjord,* Oslo, 600 bls. sulphite.
Bank of N. Y. Trust Co., *Hansa,* Hamburg, 490 bls. wood-pulp, 98 tons.
Absorbo Beer Pad Co., *Hansa,* Hamburg, 360 bls. wood pulp, 38 tons.
Castle & Overton, Inc., *Rydboholm,* Wiborg, 259 bls. wood pulp.
Pulp Sales Corp., *Rydboholm,* Kirkkoniemi, 5,300 bls. sulphite.

WOOD PULP BOARDS

Jay Madden Corp., *Southlure,* Kotka, 66 rolls, 259 bls., 44 tons.
Jay Madden Corp., *Mormactide,* Kotka, 53 rolls, 23 tons.
H. Fuchs & Son, *Kungsholm,* Gothenburg, 219 crates.
Jay Madden Corp., *Rydboholm,* Kotka, 42 crates.

ALBANY IMPORTS

WEEK ENDING JUNE 4, 1938

Blanchard Lumber Co., *Southlure,* Stockholm, 191 bdls. wall board.
Price & Pierce, Ltd., *Southlure,* Stockholm, 600 bls. bleached sulphite, 101 tons.
Pulp Sales Corp., *Southlure,* Helsingfors, 1,742 bls. sulphite, 290 tons.
Pulp Sales Corp., *Southlure,* Helsingfors, 1,290 bls. sulphate, 214 tons.
Pulp Sales Corp., *Southlure,* Wiborg, 216 bls. sulphate, 36 tons.
Pulp Sales Corp., *Southlure,* Kotka, 2,786 bls. sulphite, 515 tons.

BOSTON IMPORTS

WEEK ENDING JUNE 4, 1938

Oxford University Press, *Carinthia,* Liverpool, 11 cs. printing paper.
G. F. Malcolm, Inc., *Carinthia,* Liverpool, 1 cs. tissue paper.

NEW LONDON IMPORTS

WEEK ENDING JUNE 4, 1938

Gottesman & Co. Inc., *Delaware,* Sweden, 2,950 bls. unbleached sulphite.

PHILADELPHIA IMPORTS

WEEK ENDING JUNE 4, 1938

Pulp Sales Corp., *Scanpenn,* Helsingfors, 130 bls. mechanically ground pulp.
Lagerloef Trading Co., *Scanpenn,* Kotka, 1,295 bls. mechanically ground pulp.
Gottesman & Co. Inc., *Delaware,* Sweden, 3,104 bls. bleached sulphite.
Pulp Sales Corp., *Rydboholm,* Wiborg, 4,572 bls. sulphite.
Pulp Sales Corp., *Rydboholm,* Wiborg, 150 bls. sulphate.
Wilkinson Bros. & Co. Inc., *Rydboholm,* Kotka, 60 rolls newsprint.
J. W. Hampton, Jr. & Co., *Rydboholm,* Kotka, 340 rolls newsprint.
Public Ledger, Inc., *Rydboholm,* Kotka, 353 rolls newsprint.
Jay Madden Corp., *Rydboholm,* Kotka, 173 bls. newsprint.

WILMINGTON IMPORTS

WEEK ENDING JUNE 4, 1938

Castle & Overton, Inc., *Scanpenn,* Wiborg, 5,977 bls. wood pulp, 1,195 tons.
Pulp Sales Corp., *Scanpenn,* Kotka, 1,000 bls. sulphite, 200 tons.
Jay Madden Corp., *Scanpenn,* Kotka, 760 rolls wood pulp board, 87 tons.
Jay Madden Corp., *Scanpenn,* Kotka, 276 rolls newsprint.

BALTIMORE IMPORTS

WEEK ENDING JUNE 4, 1938

Castle & Overton, Inc., *Black Gull,* Rotterdam, 517 bls. wood pulp, 98 tons.
Congoleum Nairn Co., *Black Gull,* Rotterdam, 226 bls. rags.
———, *Black Gull,* Antwerp, 15 bls. wrapping paper.
Bankers Trust Co., *Lucia C.,* Trieste, 1,326 bls. wood pulp.

NORFOLK IMPORTS

WEEK ENDING JUNE 4, 1938

———, *Lucia C.,* Trieste, 1,064 bls. wood pulp.
Bankers Trust Co., *Lucia C.,* Trieste, 1,050 bls. sulphite.
Price & Pierce, Ltd., *Ragnhildsholm,* ———, 6,480 bls. unbleached sulphite.
Gottesman & Co. Inc., *Ragnhildsholm,* Sweden, 5,425 bls. unbleached sulphite.

Turkey's New Mill Makes Good Record

WASHINGTON, D. C., June 8, 1938—The paper and board mill at Ixmit, Turkey, with an annual productive capacity of 11,000 metric tons, turned out during 1937, the first full year of its activity, 10,204 tons, according to reports to the Department of Commerce. This mill is obliged at present to import raw materials comprising wood pulp, kaolin, alum, scrap paper, etc., which it requires. The wood requirements of the factory amount to 15,000 cubic meters per year, and inasmuch as the Turkish forest conservation law and the lack of adequate transportation facilities prevent the utilization of the national forests, timber requirements are now being imported from Russia and Rumania. It is hoped, however, that in the near future the mill will be able to cover its requirements from the forests on the Black Sea littoral.

Dismiss Bogalusa Patent Injunction

NEW ORLEANS, La., June 6, 1938 — The United States fifth circuit court of appeals has affirmed action of United States District Judge Wayne G. Borah, in dismissing a petition for an injunction to restrain the Bogalusa Paper Company, Bogalusa, from alleged infringement on patents in the use of two processes in paper making. The action was brought by the Bauer Brothers Company, Springfield, Ohio. The appellate court sustained Judge Borah, who held that no patent infringements were involved.

Box Men Reelect Officers

All of the officers of the National Paper Box Manufacturers Association were reelected at the annual convention of the organization held recently in Cleveland, Ohio. The reelected officers are as follows:

Allen K. Schleicher of St. Louis, president; Charles K. Shaw of Pawtucket, R. I., vice president; William B. Kreeger of Philadelphia, secretary; Walter H. Deisroth of Philadelphia, treasurer; W. Clement Moore of Philadelphia, cost and tax consultant, and Harry Edwin Roden of New York, director of publicity.

Distribute Greylock Sample Books

Sample books of Advance Bond and Greylock Bond are now being distributed to agents for these grades by the L. L. Brown Paper Company, Adams, Mass. The former paper is made from 100 per cent new, white linen and cotton cuttings and the latter from 75 per cent of this raw material. Copies may be obtained from the company or any of its distributors.

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KALIX TRÄINDUSTRI AKTIEBOLAG
Vanaförden, Sweden
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Munksund, Sweden
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Edsvalla, Sweden
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New York Market Review

Office of the PAPER TRADE JOURNAL,
Wednesday, June 8, 1938.

The wholesale paper market reports a seasonal decline in the demand for practically all grades of paper during the current week. The average ratio of production of over 180 paper mills is a little over 69 per cent, compared to over 90 per cent for the corresponding period last year. As distribution of paper has been quite well balanced with production during this year, and as demand for almost all paper and paper products has kept up to a relatively high level, conditions have continued more satisfactory in the paper industry than in most other major industrias whose output largely consist of consumer goods. In some important divisions of the industry, prices are reported to be less firm for the current week, although no official change in market prices have occurred.

The demand for newsprint continues moderately active and shipments under contract are going forward in good volume. No change from current prices are expected in the near future.

Writing papers, which have been in good demand for some weeks are in less active demand for this week, as general industry and trade enters the beginning of the normal seasonal lull during the summer months. Prices of all sulphite papers continue relatively firm and no change is reported from prevailing market quotations.

Kraft papers continue in relatively good demand. Although some reduction in prices are expected in some quarters of the trade, no announcement of any change in present market quotations are reported for this week. Production in box board continues to hold up well and distribution of some grades is also moderately good, although prices are less firm for the week. No change in authentic market prices are reported, with the exception of white patent coated, which is lower for the week.

Chemical Pulp

No noteworthy change in demand or prices is reported in the chemical pulp market for this week. The condition of this market is substantially the same as reported last week. Kraft pulps are reported in some quarters of the trade as in somewhat better demand than other grades, but little improvement in mill demand is looked for in the near future. Prices continue relatively firm.

Mechanical Pulp

The demand for mechanical pulp continues light and no change in either demand or prices are reported for this week. Prices continue to remain relatively firm.

Old Rope and Bagging

The demand for old rope is very light. Prices continue unchanged. Little business is reported in old bagging and prices remain at prevailing levels.

Rags

The demand for all grades of new and old domestic rags is very light. No change in demand or prices are reported this week. The foreign rag market continues inactive and prices are nominal.

Waste Paper

The improvement in demand for white envelopes which began some two weeks ago continues. Prices on white envelope cutting are a little higher for this week. The demand for other grades of waste paper is very light and no other change, than that noted above, has been reported.

Twine

The twine market reports demand as only fair in some grades, with the volume of sales for the whole market reported as light. No change from prevailing market quotations are reported for the current week.

Winners in Caslon Sales Contest

During the past few months, the distributors of Caslon Business Papers have been competing for Silver Cup Awards in a sales contest known as "Headliners of 1938".

Beautiful silver cups were awarded to the winning distributors in the Eastern and Western Divisions, the dividing line being the Mississippi River. The General Paper Company of Los Angeles won the Western Division cup.

The Whitaker Paper Company of Chicago billed sufficient orders during the final two weeks to win the Eastern Division Cup Award, closely followed by The Whitaker Paper Company, Pittsburgh; Central-Ohio Paper Company, Cleveland; The Whitaker Paper Company, Baltimore and the Arnold-Roberts Company, Boston.

Discuss Hammermill Papers

[FROM OUR REGULAR CORRESPONDENT]

BOSTON, Mass., June 6, 1938.—A meeting of the sales staff of Carter, Rice & Co., Corporation, was held at the office of the company Saturday morning, when four men from the Hammermill Paper Company, Erie, Pa., discussed papers made by their concern. Frank H. Winter, sales manager of Carter, Rice, presided.

Roger Taft, Eastern sales manager of Hammermill, showed the talking picture of duplicate papers; Harold Peckham, promotional manager, discussed duplicate papers and offset; Gilbert Boutwell, in charge of covers, talked on Hammermill Covers, and Harrison Baldwin, vice-president in charge of sales, made a summary of all the discussions.

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67 Fairmount Ave. Jersey City, N. J.

Miscellaneous Markets

Office of the PAPER TRADE JOURNAL,
Wednesday, June 8, 1938.

BLANC FIXE—The prices of blanc fixe continue firm and conform to prevailing quotations. The pulp is quoted at from $42.50 to $45 per ton, in bulk; the powder is offered at from 3½ to 3¾ cents per pound, in barrels, at works.

BLEACHING POWDER — Quotations on bleaching powder are unchanged at prevailing prices. Bleaching powder is quoted at from $2 to $2.25 per 100 pounds, in drums, at works.

CASEIN — The demand for casein continues fair. Prices are unchanged for the current week. Domestic standard ground casein is quoted at from 7½ to 8 cents per pound; domestic finely ground at from 8½ to 9 cents per pound. All prices in bags, car lot quantities.

CAUSTIC SODA—Prices of caustic soda continue firm and conform to prevailing quotations. Solid caustic soda is quoted at from $2.10 to $2.30 per 100 pounds; flake and ground at from $2.50 to $2.70 per 100 pounds, in drums, at works.

CHINA CLAY—The prices of china clay continue firm and unchanged for the current week. Imported clay is quoted at from $14.50 to $25 per ton, ship side. Domestic filler clay is quoted at from $6.50 to $12 per ton; coating clay at from $11 to $22 per ton, at mines.

CHLORINE — The price of chlorine continues unchanged at prevailing market quotations. Chlorine is quoted at $2.15 per 100 pounds, in single-unit tank cars, f.o.b., works.

ROSIN—The demand for rosin is reported as fair. Prices are unchanged for the week. "G" gum rosin is quoted $4.15; wood rosin at $4.25 per 280 pounds, gross weight, in barrels, at Savannah. Seventy per cent gum rosin size is offered at $2.50 per 100 pounds, f.o.b., shipping point.

SALT CAKE—Prices of salt cake continue firm at prevailing quotations. Prices range at from $12 to $13.50 per ton; chrome salt cake at from $11 to $12 per ton, f.o.b., shipping point. Imported salt cake is quoted at from $14.50 to $15 per ton, Gulf or Atlantic Seaboard, on dock.

SODA ASH—The prices of soda ash are firm and unchanged for the week. Prices of soda ash, in car lots, at works, per 100 pounds, are as follows; in bulk, $.90; in bags, $1.05; and in barrels, $1.35.

STARCH—The corn starch market is reported firm for the current week. Prices are slightly lower. Globe pearl is quoted at $2.60 per 100 pounds, in bags, and at $2.85 in barrels. Special paper starch is offered at $2.70 per 100 pounds, in bags, and at $2.95 in barrels. All prices in car lots, f.o.b., Chicago.

SULPHATE OF ALUMINA—Quotations on sulphate of alumina are unchanged at prevailing prices. The commercial grades are offered at $1.15 per 100 pounds; iron free at $1.30 per 100 pounds, in barrels, car lot quantities, at works.

SULPHUR—The sulphur market reports prices as firm and unchanged at prevailing quotations. Annual contracts are quoted at $18 per long ton, f.o.b., cars at mines. Spot and nearby car lots are offered at $21 per ton.

TALC—The prices of talc continue unchanged at prevailing quotations. Domestic talc is offered at from $15 to $18 per ton, Eastern mines. Imported talc is offered at from $25 to $40 per ton, on dock.

Market Quotations

Paper

(Delivered New York)

News, per ton—
Roll, contract.....$50.00 @ —
Sheets .....58.00 @ —

Kraft—per cwt.—Delivered Zone A

No. 1 Northern....$5.12½ @$5.37½
Superstandard .... 5.00 @ —
Northern Standard Wrapping ..... 4.50 @ —
Standard Wrapping 4.00 @ —

Tissues—Per Ream—Carlots

White No. 1..... .92½ @ —
White No. 1 M. G. .90 @ —
White No. 1½.... .67½ @ —
White No. 2..... .60 @ —
Anti-Tarnish M. G. .75 @ —
Colored ..... .87½ @ —
Kraft ..... .75 @ —
Manila ..... .60 @ —
Unbl. Toilet, 1 M.. 3.20 @ —
Bleached Toilet.... 5.26 @ —

Paper Towels—

Unbleached ..... 1.80 @ —
Bleached ..... 2.10 @ —

Manila—per cwt.—C. l. f. a.

No. 1 Jute.....$8.25 @$10.25
No. 2 Jute..... 7.50 @ 9.50
No. 1 Wood..... 4.00 @ 5.25
No. 2 Wood..... 3.50 @ 4.00

Boards, per ton—

News .....$27.50 @$30.00
Chip ..... 27.50 @ 30.00
Sgl. Mla. Ll. Chip. 42.50 @ 45.00
Jute Lined Chip... 45.00 @ —
White Pat. Coated. 55.00 @ 57.50
Kraft Liners..... 52.50 @ —
Binders Boards..... 71.00 @77.00

The following are representative of distributors' resale prices:—

Rag Content Bonds and Ledgers—
White, Assorted Items,
Delivered in Zone 1:

	Bonds	Ledgers
100% Rag Ext. No. 1	$41.40@$48.50	$42.55@$50.00
100% Rag	32.80@ 38.50	33.95@ 39.75
85% Rag	.....	31.65 @37.25
75% Rag	24.75@ 29.00	25.90@ 30.50
65% Rag	21.65@ 26.25	22.80@ 27.75
50% Rag	18.70@ 22.75	19.90@ 24.25
25% Rag	15.80@ 19.25	16.95@ 20.75

Regular Colors @ $1.50 cwt. extra.
Heavy Colors @ $3.00 cwt. extra

Sulphite Bonds and Ledgers—
White, Assorted Items,
Delivered in Zone 1:

	Bonds	Ledgers
No. 1	$8.80@$10.75	$9.95@$12.00
No. 2	7.90@ 9.50	9.05@ 11.00
No. 4	7.00@ 8.50	8.20@ 10.00

Colors $1.00 cwt. extra.

Free Sheet Book Papers—
White, Cased Paper,
Delivered in Zone 1:

No. 1 Glossy Coated...$12.15@$14.25
No. 2 Glossy Coated.. 10.55@ 12.25
No. 3 Glossy Coated.. 9.35@ 11.00
No. 4 Glossy Coated.. 8.80@ 10.50
No. 1 Antique (watermarked) ..... 8.80@ 10.50
No. 2 Offset..... 8.05@ 9.50
A Grade E. F..... 7.90@ 9.50
A Grade S. & S. C.... 8.15@ 9.75
B Grade E. F..... 7.30@ 8.75
B Grade S. & S. C.... 7.55@ 9.00
C Grade E. F..... 7.00@ 8.50
C Grade S. & S. C.... 7.25@ 8.75
D Grade E. F..... 6.75@ 8.25
D Grade S. & S. C.... 7.00@ 8.50
Ivory & India at $.50 cwt. extra.

Mechanical Pulp

(On Dock, Atlantic Ports

No. 1 Imported—
Moist .....27.00 @30.00
Dry .....27.00 @30.00

(Delivered)

No. 1 Domestic and Canadian .....29.00 @33.00

Chemical Pulp

(On Dock, Atlantic, Gulf and West Coast Ports)

Bleached Sulphite (Domestic and Foreign)—
Prime Bleached Sulphite ..... 2.50 @ 3.50
Prime Qualities—
Easy-Bleaching Sulphite ..... 2.25 @ 2.50
Strong Unbleached Sulphite ..... 2.00 @ 2.25

(On Dock, Atlantic Ports)

Kraft Bleached..... 2.75 @ 3.25
Kraft Light & Strong 2.00 @ 2.25
Kraft No. 1..... 1.85 @ 2.15
Kraft No. 2..... 1.75 @ 1.90

(F.o.b. Pulp Mill)

Kraft Domestic..... 2.00 @ 2.35

(Delivered)

Soda Bleached..... 2.70 @ —

Add 60 cents per short ton, does charges for Albany; $2.50 for Lake Ports East and $3.50 for Lake Ports West of Mackinac Straits

Domestic Rags

New Rags

(Prices to Mill f. o. b. N. Y.)

Shirt Cuttings—
New White, No. 1. 6.25 @ 6.50
Silesias No. 1..... 5.00 @ 5.25
New Unbleached.. 6.25 @ 6.50
Blue Overall..... 4.00 @ 4.50
Fancy ..... 2.25 @ 2.50
Washables ..... 1.80 @ 1.90
Mixed Khaki Cuttings ..... 3.60 @ 3.75
O. D. Khaki Cuttings 4.35 @ 4.50

Old Rags

White, No. 1—
Repacked ..... 3.40 @ 3.50
Miscellaneous ..... 2.75 @ 3.00
White, No. 2—
Repacked ..... 2.10 @ 2.25
Miscellaneous ..... 1.70 @ 1.80
Thirds and Blues—
Repacked ..... 1.40 @ 1.50
Miscellaneous ..... 1.25 @ 1.30
Roofing Rags—
No. 1..... 1.00 @ 1.15
No. 2..... .75 @ .80
No. 3 (bagging)... .65 @ .70
No. 4..... .65 @ .70
No. 5A..... .65 @ .70

Foreign Rags

New Rags

New Dark Cuttings.. 2.25 @ 2.40
New Mixed Cuttings. 2.00 @ 2.20
New Light Silesias.. 5.50 @ 5.75
Light Flannelettes... 5.50 @ 5.75
New White Cuttings. 7.00 @ 7.50
New Light Oxford.. 4.00 @ 4.50
New Light Prints... 3.00 @ 3.25

Old Rags

No. 1 White Linens. 7.50 @ 8.50
No. 2 White Linens. 6.50 @ 7.50
No. 3 White Linens. 4.50 @ —

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PAPER MILL CORES

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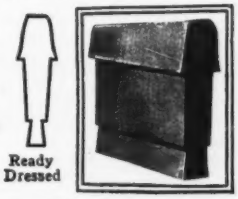

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No. 1 White Cotton.	4.25	@	4.75
No. 2 White Cotton.	3.25	@	3.75
No. 3 White Cotton.	2.50	@	3.00
No. 4 White Cotton.	1.90	@	2.20
Extra Light Prints..	2.00	@	2.40
Ord. Light Prints...	1.75	@	2.15
Med. Light Prints...	1.55	@	1.95
Dutch Blue Cottons..	2.25	@	2.50
French Blue Linens..	3.00	@	—
Checks and Blues...	2.00	@	—
Linsey Garments....	1.90	@	2.00
Dark Cottons.....	1.50	@	1.60
Old Shopperies.....	1.30	@	1.45
New Shopperies.....	1.45	@	1.50
French Blues.....	2.25	@	2.50

Old Rope and Bagging

(Prices to Mill f. o. b. N. Y.)

Gunny No. 1—			
Foreign	2.25	@	2.35
Domestic	2.20	@	2.25
Wool Tares, light....	1.50	@	1.75
Wool Tares, heavy..	2.00	@	2.10
Bright Bagging.....	1.60	@	1.70
Manila Rope—			
Foreign	2.50	@	2.75
Domestic	2.75	@	2.90
Jute Threads.....	2.75	@	3.00
Sisal Strings.....	1.75	@	2.00
Mixed Strings.....	.60	@	.70

Old Waste Papers

(F. o. b. New York)

Shavings—			
White Envelope Cuttings	2.35	@	2.50
Ordinary Hard White No. 1....	1.90	@	2.00
Soft White No. 1..	1.80	@	2.20
Flat Stock—			
Stitchless	.70	@	.80
Overissue Mag....	.60	@	.70
Solid Flat Book....	.55	@	.60
Crumbled No. 1...	.40	@	.45
Ledger Stock.....	.90	@	.95
New B. B. Chips....	.15	@	.20
Manila—			
New Env. Cut....	1.85	@	2.00
New Cuttings.....	1.50	@	1.60
Old Kraft Machine—			
Compressed bales..	.60	@	.70
News—			
No. 1 White News	1.25	@	1.30
Strictly Overissue.	.45	@	.50
Strictly Folded....	.20	@	.25
No. 1 Mixed Paper..	.05	@	.10

Twines

(F. o. b. Mill)

(Soft Fiber)

Coarse Polished—			
India	.11	@	.13
White Hemp.....	.12	@	.14
Fine Polished—			
Fine India.....	.15	@	.17
Unpolished—			
Box	.08½	@	—
Paper Makers.....	.07½	@	.08½
Tube Rope.....	.09	@	.10
Wall Paper.....	.10	@	.11
Wrapping	.11	@	.13
Soft Fiber Rope...	.09½	@	.11½
Cotton	.15	@	.20

(Hard Fiber)

Medium Java.....	.09	@	.10
Mex. Sisal.....	.08½	@	.09½
Manila	.18	@	.25

Domestic	2.25	@	2.50
Sisal Rope.....	1.65	@	1.85
Mixed Rope.....	.50	@	.75
Transmission Rope...	1.50	@	1.75
Soft Jute Rope.....	1.75	@	1.90
Jute Carpet Threads.	.90	@	1.25
Gunny Bagging—			
Foreign	2.30	@	2.35
Domestic	1.75	@	1.90
Bleachery Burlap....	3.25	@	3.75
Scrap Burlap—			
Foreign	1.50	@	1.60
Domestic	1.25	@	1.50
Scrap Sisal	1.25	@	1.50
Scrap Sisal for Shredding	1.75	@	1.90
Wool Tares, Heavy..	1.50	@	1.60
New Burlap Cuttings	1.85	@	2.00
Aust. Wool Pouches.	2.85	@	3.10
Heavy baling bagging	1.85	@	2.00
Paper Mill Bagging..	1.00	@	1.15
No. 2 Bagging.....	.50	@	.60

Domestic Rags (New)

(F. o. b. Boston)

Shirt Cuttings—			
New Light Prints.	.03	@	.03¼
New White No. 1...	.06½	@	.06¾
New White No. 2.	.05	@	.05½
New Light Flannelettes	.04¼	@	.04¾
Silesias No. 1.....	.04¼	@	.04¾
New Black Silesias..	.03¾	@	.04
Silesias No. 1			
Soft Unbleached.....	.06¾	@	.07
Blue Cheviots.....	.05	@	.05¼
Fancy	.03	@	.03¼
Washable	.02¾	@	.03

Cottons—According to grades—			
Blue Overalls.....	.04¾	@	.05
New Black, soft...	.03¾	@	.04
Khaki Cuttings....	.03¼	@	.03⅝
D. D. Khaki.....	.04	@	.04⅜
Corduroy	.02¾	@	.07
New Canvas.....	.06¾	@	.07¼
B.V.D. Cuttings.....	—	@	.06⅜

Domestic Rags (Old)

(F. o. b. Boston)

Canvas	.04½	@	—
White No. 1—			
Repacked	—	@	2.75
Miscellaneous	2.50	@	2.75
White No. 2—			
Repacked	1.90	@	2.00
Miscellaneous	2.00	@	2.25
Twos and Blues.....	1.75	@	2.00
Third and Blues—			
Repacked	1.37½	@	1.75
Miscellaneous	1.25	@	1.63⅜
Black Stockings.....	3.90	@	4.00
Roofing Stock—			
No. 1.....	1.00	@	1.10
No. 2.....	.75	@	.85
No. 3.....	.65	@	.70

Foreign Rags

(F. o. b. Boston)

Dark Cottons.....	1.00	@	1.05
Dutch Blues.....	2.65	@	2.75
Old Fustians.....	2.25	@	2.50
Old Linsey garments.	1.75	@	1.90
New Silesias.....	6.00	@	6.50

PHILADELPHIA

Domestic Rags (New)

(Price to Mill, f. o. b. Phila.)

Shirt Cuttings—			
New White, No. 1.	.05½	@	.06
New White, No. 2.	.03½	@	.04
Light Silesias.....	.04	@	.04½
Silesias, No. 1....	—	@	.04½
Black Silesias, soft.	.03	@	.03⅜
New Unbleached..	—	@	.06
Washable, No. 1..	.01¾	@	.01⅞
Blue Overall.....	.04	@	.04½
Cottons According to grades—			
Washable No. 2...	.01	@	.01¾
New Blue.....	.01	@	.01¾
Fancy Percales....	—	@	.02½
New Black Soft...	.03	@	.03⅜
New Light Seconds	—	@	.04½
New Dark Seconds	.50	@	.75
Khaki Cuttings—			
No. 1 O. D.....	.03½	@	.04
No. 2 Mixed.....	.02	@	.02½
Corduroy	—	@	.02
New Canvas.....	.05	@	.05½
New Black Mixed.	.02½	@	.02¾

Domestic Rags (Old)

White No. 1—			
Repacked	3.50	@	4.00
Miscellaneous	2.00	@	2.25
Twos and Blues—			
Miscellaneous	1.00	@	1.25
Repacked	1.50	@	1.75
Black Stockings (Export)	3.00	@	3.50
Roofing Stock—			
Foreign No. 1....	—	@	.75
Domestic No. 1...	—	@	1.00
Domestic No. 2...	—	@	.85
Roofing Bagging..	—	@	.70

Bagging

(F. o. b. Phila.)

Gunny, No. 1—			
Foreign	1.50	@	1.75
Domestic	1.50	@	1.75
Manila Rope.....	3.00	@	3.25
Sisal Rope.....	—	@	1.50
Mixed Rope.....	.75	@	1.00
Scrap—			
No. 1.....	—	@	1.50
No. 2.....	1.00	@	1.25
Wool Tares, heavy..	3.25	@	3.50
Mixed Strings.....	1.00	@	1.10
No. 1 New Light Burlap	3.00	@	3.50
New Burlap Cuttings	1.75	@	2.00

Old Papers

(F. o. b. Phila.)

Shavings—			
No. 1 Hard White.	2.15	@	2.20
No. 2 Hard White.	2.00	@	2.10
No. 1 Soft White..	1.80	@	1.90
No. 2 Soft White..	1.25	@	1.30
No. 1 Mixed.....	.70	@	.75
Solid Ledger Stock..	1.50	@	1.60
Ledger Stock, white.	1.00	@	1.50
Ledger Stock, colored	.75	@	.80
No. 1 Books, heavy..	.65	@	.70
Manila Cuttings.....	1.50	@	1.75
Print Manila.....	.30	@	.35
Container Manila...	—	@	.40
Kraft Paper.....	.75	@	.80
No. 1 Mixed Paper..	.15	@	.20
Straw Board Chip...	.25	@	.30
Binders Board Chip.	.25	@	.30
Corrugated Board...	.50	@	.55
Overissue News.....	.50	@	.55
Old Newspapers.....	.25	@	.30

BOSTON

Old Papers

(F. o. b. Boston)

Shavings—			
No. 1 Hard White.	2.25	@	2.40
No. 1 Soft White..	1.85	@	2.15
No. 2 Mixed.....	.75	@	.80
Solid Ledger Books..	1.50	@	1.75
Overissue Ledger Stock	1.30	@	1.50
Mixed Ledgers.....	.85	@	.90
No. 1 Books, heavy..	.65	@	.75
No. 1 Books, light...	.65	@	.75
Crumpled Stitchless Book Stock.....	.55	@	.65
Manila Env. Cuttings	1.60	@	1.70
Manila Envelope Cuttings, extra quality	2.10	@	2.20
No. 1 Old Manila...	.95	@	1.00
White Blank News..	1.30	@	1.40
No. 1 Kraft.....	.90	@	—
Mixed Papers.....	—	@	.10
Print Manila.....	.45	@	.50
Container Manilas...	.27½	@	—
Old Newspapers.....	.25	@	.32½
Paper Wool Strings..	.75	@	—
Overissue News.....	.45	@	.50
Box Board Chips....	.20	@	.25
Corrugated Boxes....	.27½	@	.30
Kraft corrugated boxes	.65	@	.70
Screening Wrappers..	.40	@	.45

Bagging

(F. o. b. Boston)

Manila Rope—			
Foreign	2.75	@	2.85

CHICAGO

Old Papers

(F. o. b. Chicago)

Shavings—			
No. 1 White Envelope Cuttings....	1.80	@	1.90
No. 1 Hard White.	1.70	@	1.80
No. 1 Soft White..	1.50	@	—
Ledger & Writings..	.75	@	.80
Solid Books.....	.55	@	—
Blanks	.90	@	—
Krafts	.60	@	—
New Kraft Cuts.....	1.10	@	—
Manila Env. Cuts...	Nominal		
Ex. No. 1 Manila...	Nominal		
Print Manila.....	Nominal		
Overissue News.....	.35	@	—
Old Newspapers—			
No. 1 Folded News	.30	@	—
No. 1 Mixed Paper	.20	@	—
Roofing Stocks—			
No. 1.....	2.00	@	2.10
No. 2.....	1.85	@	2.00

TORONTO

Paper

Bonds and Ledgers

Delivered

No. 1 White	.36½	@	—
No. 1 Tints	.37½	@	—
No. 2 White	.26½	@	—
No. 2 Tints	.27½	@	—
No. 4 White	—	@	.1550
No. 4 Tints 16.50		@	—
No. 5 Bond—White 11.85		@	—
No. 5 Bond—Tints .12.85		@	—
No. 5 Bond—Golden Rod 13.35		@	—
No. 5 Ledger—White .1185		@	—
No. 5 Ledger—Tints. .1285		@	—
No. 6 Bond—White .10.75		@	—
No. 6 Bond—Tints .11.25		@	—
No. 6 Bond—Golden Rod 12.75		@	—
No. 7 Bond—White . 9.10		@	—
No. 7 Bond—Tints . 9.60		@	—
No. 7 Bond—Golden Rod 11.10		@	—
Book—			
No. 1 M. F. 7.35		@	—
No. 2 M. F. 6.85		@	—
No. 3 M. F. 5.60		@	—
No. 1 S. C. 7.60		@	—
No. 2 S. C. 7.10		@	—
[illegible] S. C. 6.10		@	6.35
No. 1 Coated Book and Litho 12.50		@	—
No. 2 Coated Book and Litho 11.00		@	—
No. 3 Coated Book and Litho 10.00		@	—
Coated tinted.....13.50		@	—
Wrapping—delivered—			
Rag Brown.....	4.85	@	5.55
White Wrap.....	4.00	@	—
"B" Manila.....	4.90	@	6.25
No. 1 Manila.....	5.50	@	7.00
Fiber	5.50	@	—
Kraft No 2 ..	[illegible]		

(F. o. b. Cars, Toronto)

News, per ton—			
Rolls (contract)..$50.00		@	—
Sheets 69.50		@	—

Pulp

Ground wood.....29.50		@	—
Unbleached Sulphite.54.00		@	—
Book (Class 1).....64.00		@	—
Writing (Class 2)...62.00		@	—
Select (Class 3).....63.00		@	—
Kraft 50.00		@	—
Soda 56.00		@	—

Old Waste Paper

(In carload lots, f. o. b. Toronto)

Shavings—			
White Env. Cut...	2.25	@	—
Soft White.....	2.15	@	—
White Blk. News..	1.25	@	—
Book and Ledger—			
Flat Magazine and Book Stock (old)	.80	@	—
Light and Crumpled Book Stock.	.75	@	—
Ledgers and Writings	1.10	@	—
Manilas—			
New Manila Cut...	1.35	@	—
Printed Manilas...	.45	@	—
Kraft	.95	@	—
News and Scrap—			
Strictly Overissue.	.50	@	—
Strictly Folded....	.45	@	—
No. 1 Mixed Paper..	.30	@	—

Domestic Rags

(Price to mills, f. o. b. Toronto)

No. 1 White Shirt Cuttings	.06½	@	.06⅝
Fancy Shirt Cuttings	.02¼	@	.02⅜